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VOLUME XII. *"PRACTICE WITH THEORY AND SCIENCE."* NUMBER 4.

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FARMERS INSTITUTE.

Third Annual Institute at Hudson—An Interesting and Profiable Meeting—Summary of the Proceedings.

The Third Annual Farmers' Institute, held under the auspices of the State Board of Agriculture, began at Fowle's Opera House, Tuesday evening, Jan. 18, and was opened by prayers by the Rev. T. G. Colton, which was followed by a greeting from the President, Hon. A. B. Slocum, of Wheatland, who welcomed the gentlemen from the Agricultural College and the farmers and their wives from the country around, who had come together for the discussion of subjects assigned by the committee. The President spoke of the past and present facilities for agricultural work, referring in approving terms to the modern harvester and selt binder which now takes the place of the slow sickle of early times. Our educational advantages he said had kept pace with mechanical improvements, and we have here in our own State the pioneer agricultural educational institution of the whole broad land, in our State College, with its able corps of professors, where our sons may be fitted for the noble calling of tilling the soil; and we shall be glad to see the day when our daughters, too, may be admitted to this great school on equal terms with our sons.

E. D. Pierson, of Hudson, next read a paper on "Little Things on the Farm." He dwelt upon the advantage of being systematic and accurate concerning all things about the farm, the little affairs as well as matters of greater moment. He advocated the keeping of an account of every day's doings upon the farm, as a valuable aid and guide from year to year. Speaking of the great progress in the agricultural world, he maintained that the greatest advances had been made in free Republican America, where the farmers were generally the owners of the soil, and neither the slaves of exacting landlords, or of a government which required their best years in the military service. The speaker was proud of our nation and our own great State, though younger than many of her sisters, she is now a growa and beautiful girl. She is withal a thrifty, prudent girl, keeps money in her pocket and is always ready to pay her debts. Was there ever such a country, as a whole, bef.re? Was there ever such a body of enterprising farmers inhabiting a single domain? They combine within themselves every nation, talent and race. Speaking of the great productions and exportations of the country, he said: Brother Jonathan stretches out his great brawny arm and tosses to other nations great ship loads of cotton and corn; with wheat and fine flour he feeds them, not forgetting to provide plenty of good, sweet ham and fat beef. Cheese he also sends them for an appetizer and a lunch.

President Abbott, of the Agricultural College, followed on "Social Rank of Farmers." The gist of his remarks was that farmers had it in their own power to elevate the plane of their social life—that there was nothing in their calling to separate them so widely, socially, from those engaged in commercial or professional pursuits. Farmers are too apt to feel that theirs is simply a life of toil, when the fact is it is toil, toil in every department of existence. The merchant, the manufacturer, the lawyer, the doctor, all have their hard tasks as well as the farmer. The farmer, no more than any of these, should neglect to cultivate the heart and mind, the better part of their natures. As knowledge adds grace as well as power to man's faculties, every farmer's son and daughter should be educated with a good, liberal education, not neglecting those branches of great practical importance to the progressive, successful husbandman, such as chemistry, geology, botany, etc. He closed by quoting from Professor Peabody, of Harvard University. The proper condition of society will never be known until labor receives its old and proper standard; until agriculture is looked upon as a profession ranking higher than the common commercial professions, and fully equal to the highest, and that never can be until it is stocked with the educated men of the country, and we look to the scientific and agricultural institutions to supply this want. The meeting then adjourned till 10 A. M. Wednesday.

WEDNESDAY MORNING SESSION.

The first paper was by J. O. Beal, of Rollin, on "Dairying," and was as follows:

The manufacture of butter and cheese for the last few years has undoubtedly been marked by progress and improvement, nearly every season, both as to quality and quantity. The ushering in of the factory system instead of the single farm dairy, was a long step in advance. We also have now several patent creameries for butter making in the single farm dairy, which will enable dairymen to manufacture uniform gilt edge butter independently of the hot July or August weather.

If our grandmothers of fifty years ago were here to-day and I were to tell them that we were making great improvements over their methods of making butter, they might justly refer me to the tons of sueine or lard butter manufactured in Chicago, and the seven million pounds of oleomargerine sent abroad from New York City within the past year and palmed off on the unsuspecting public as pure butter. They might say to me that if our butter was so poor that it could not be distinguished from lard or tallow, they did not think we had improved much on the quality. But I could answer them that it was not that our butter was so poor, but that Yankee ingenuity had so perfectly imitated the genuine article by the the manufacture of spurious. Butter is not the only commodity that is counterfeited.

Dairying, like other branches of farming, means work and constant watchful care, and success in it will only follow promptness, regularity and economy in the little details. I believe it is conceded in old dairy districts, that dairymen must raise their own cows, as the surest and best way to get good ones. Do not think of raising a good cow from a very poor one. I call a cow good when she gives 6,000 lbs of milk a year, this will make 600 lbs of cheese, or nearly 300 lbs of butter, and to do this she will have to give from 35 to 40 lbs per day in May and June, with good flush feed. There are so many poor cows in the country, cows that do not give milk enough to pay for the feed they eat, that I desire to call your attention to the fact. It is an excellent plan to weigh the milk from time to time to see what your cows are doing. I find that positive knowledge is much better than any mere guesswork.

Several persons have brought milk to our cheese factory whose cows averaged less than 20 lbs each per day during the best of the season; this ought not to be. I believe I have raised but two cows that did not come up to 25 lbs of milk per day each, at two years old. We all want to raise good cows if any at all; then select heifer calves from good milkers (and I would prefer that the calf's mother should have a good moral character also). To my notion a March or April calf is much preferable to one that came later in the season, then if it is well kept (no other keeping will pay) it will be large enough to itself become a mother at two years of age. Take the calf away from the cow at two or three days old, then if it is an intelligent calf you ought to be able to teach it to drink in two days. I would feed it new fresh milk for ten days or two weeks, then put it on skimmed milk warmed a little, giving it from 12 to 15 quarts per day, if it will drink that much. At four or five weeks old it may be fed with sour milk. I do not want to fatten the calf, but keep it growing, so I would not feed fat forming foods, but rather those forming flesh. A good cow must have a large stomach; I feed the calf then with this idea in view, giving it skimmed milk and more of it until it is fourteen weeks or four months old, when it will get its living in good pasture until November. As soon as snow comes and it gets freezing cold, see that they have shelter, or get them up to the barn, and commence feeding them grain, oats and bran mixed with a little shelled corn will make a good feed for them, or either of these will do alone; as to the quantity of food necessary, when I was a boy they used to tell me that a little too much was just enough. If sheep have snow to eat they will get along without water, but calves must have water; large numbers are sacrificed in the west every winter for lack of sufficient water, and certainly no intelligent farmer would think of letting calves stay out of doors long at a time when the thermometer is below zero; they could not afford to do it.

Sometimes calves get lousy in the fall and winter, and of course they will not thrive in such a condition. A woolen cloth wrung out of kerosene and rubbed all over the animal is said to kill them or drive them away. I have used dry sulphur sprinkled on their backs and sides with good results, this is a cheap remedy and easily applied. I would not want to let them remain out in a cold storm just after putting it on. If they do get lousy, don't procrastinate and wait for the vermin to go away of their own accord; rest assured they will suck the life blood out of your calves first.

I tie my calves with ropes, with snaps on them, around the neck the first winter and during this time I take some pains to pet them and handle them. I have found that calves from nervous or kicking cows, are quite likely to become vicious when they in turn get to be cows, unless especial pains be taken to pet them. To break a heifer or subdue an ugly cow requires wisdom and patience. Solomon said: "He that ruleth his spirit is greater than he that taketh a city." For me to keep cool and control my voice and actions when I was kicked or covered with milk was one of the hardest things I ever undertook to do, and it took me a great while to learn that I must govern my feelings and use a little common sense. I always break heifers in the stanchions. Some of them do not need much training, but will stand quiet to be milked about the first time, just as though they were made for that purpose. Others may require a good deal of skill. If they do not readily stand to be milked, I take a small rope or strap long enough to reach around the cow and put it across the cow's back, just forward of the left hip and back of the right one, and bring it around forward of the udder, draw as tightly as the cow will bear and stand still and then fasten your rope. It may be necessary to put in a stick and twist it up, to get it tight enough to be effectual. By this method the cow cannot raise one foot far from the floor, unless she raises both at the same time. After a few trials they will not try to kick much when the rope is on. I have one extra good milker that always needs the restraint of a rope in order to be milked with safety; with the rope she stands as well as could be desired. I had another cow that failed to stand quietly under this treatment, and I strapped up one fore foot, making her stand on three legs while I was milking, and after three weeks of such treatment she has stood as well as you could ask, without either rope or strap.

I always milk my cows while they are in stanchions, summer as well as winter; it saves time, and time is money. If I mess my cows I always do it just before I sit down to milk, sometimes only one cow at a time. I think they give down their milk better and thus give more of it. There are not many days in the year, probably not over sixty, but what it will pay to give your cows a mess of some kind. Some allow two acres of pasture during the grazing season, but I prefer giving them less in the spring, when the grass grows rapidly, and then make up the deficiency, if there should be one, in August or September, with sowed corn or sweet corn stalks, corn and all the pumpkins, beet tops or any thing that I seem to have. A very small patch of sowed corn in drills will take the place of several acres of pasture, thus giving more room for grain raising. If we depend on pasture and hay to keep a cow, it will take about four acres of corn to keep her a year, but if we could keep her on sowed corn one acre would keep her a whole year. By the system of ensilage it has been proven that one acre of rich land sowed to corn and then stored in pits is sufficient to keep three cows the whole year. This would enable us to keep twelve times as many cows as under the other method.

I have been investigating this process of storing away green fodder and I must say that I have great faith in it, and would like to see it tried in our State, where land is comparatively cheap and labor high. Why can we not have a government experimental station and have this thing, as well as many others tested, to see whether it will pay or not. If farmers have representatives enough in our State Legislature it seems to me that they might be persuaded to help the Agricultural College to try this experiment. I have for several years considered hay rather expensive food for wintering cows, and it is especially so this winter. I endeavor to have corn fodder and straw enough, so that by cutting it up I can make it last until about the middle of March, then a small allowance of hay will take them through to grass.

Sugar beets and mangels are well adapted to our climate and soil, and for several years I have endeavored to raise about an acre of them. Five hundred bushels to the acre is not a very large crop. I think they are excellent food for cows and they enable me to get along with less corn. I expect to raise more of them in the future. I would recommend farmers, and especially dairymen, to try beet raising; sow early; May is better than June, on rich ground (not sod ground); give them at least one foot of room each in the row, the rows being 30 inches apart, and don't neglect to use the hoe. "A stitch in time saves nine," is an old adage, and by a few trials you can observe that nine small weeds may be killed with less labor than one large one. After you have taken the pains to raise a good crop, do not lose the whole of it by letting it freeze up. I have known this to partially happen four times in our neighborhood. I have set the tenth of October as a good time to harvest them, and am sure that I run quite a risk in leaving them longer in the ground. Carrots won't pay their cost. Parsnips may; they would have one advantage over beets, if it freezes up while they are in the ground, they would be all right when it thawed out. A row of parsnips one rod in length ought to grow one bushel, and they are very rich in starch, and are a great luxury to the cows as well as other farm stock.

Butter-making I consider belongs to the housewife, and I have not dabbled in it much, except to turn the crank occasionally. If a man keeps only from two to five cows, the old cheap and simple way of setting milk in shallow pans is the best, but if you are going to keep ten cows or more and make the butter on the farm, by all means get a creamer of some kind. You can thus get a better price for your butter and make it with less trouble, after you get accustomed to it. A good workman with good conveniences under the old method will make butter that, sold on its merits, will bring about as much as creamery butter, but the latter usually brings about five cents more per pound. When farmers buy a costly machine of any kind we take some pains to follow the directions given for its use, then if it fails to do the work required we send it back; this is all right. Now all these patent creamers and patent churns require special instructions, and we must be more precise in our operations or we will not make a success of it. For example, some years ago we set our dash churn aside and got a Union Churn, but the very first time of churning we got too much cream in it, or it was too cold, and the cream raised up so as to entirely cover the paddles, and we thought the butter would never come; the fault was not in the churn, we had not given it a fair chance. Now our Union Churn is getting old and leaky, and furthermore does not come up to the modern standard of what a churn ought to be. So I sent down to Vermont to get a modern revolving concussion churn. It is simply a rectangular box, without paddles of any kind. This brings the butter in small round particles, at which stage it is desirable to wash out the buttermilk with brine; the salt is thus worked in easily and the grain of the butter not spoiled by over working. As for our experience with this churn: at the first churning I was away from home, they had no thermometer to try the cream and it was probably too cold, and they got too much in the churn, and it took four hours to bring the butter; then in getting the buttermilk out of the churn they slopped it all over the floor and made a general muss. In fact they were quite disgusted with modern inventions. But I bought a thermometer and was going to try next time and follow out their directions very exact. We did so and the butter came in less than an hour; of course we felt better then. We set milk in our pantry in tin pans this winter, and it is not warm enough to make good butter; the cows are nearly dry, but we thought there was yet too much milk to scald. The milk would get bitter before it would sour. It did not freeze, however. One day after that extreme cold weather we churned nearly all day, then the churn being pretty full we took a pail of cream out of it, and still kept the churn going until honest people ought to be in bed, and still no butter. The next morning we warmed up the pail of cream taken out of the churn the night before, put it in the dash churn and kept the two churns running. The dash churn brought butter about 10 o'clock, but the revolving churn showed no signs of butter. I suggested in my ignorance that we put in a little soda; thought I had seen it recommended in some agricultural paper. So some soda was got and dissolved in water and put in the churn and the cover fastened on again. Now this churn has a small hole for ventilation through the revolving shaft, from which a tin tube arises higher than the cream in the churn. When we began to churn the soda set to work and made the cream boil out of this tube over onto the floor like a pot of emptyings; about that time there was a quick and loud cry for a tin-pail to catch the cream. Then we took out another pail of cream and put it in the dash churn, adding about one quart of pretty hot water in the revolving churn, and both of these lots came in about the same time, so that we could not say which churn was preferable. You see the revolving churn stood over night in a cold kitchen where it was nearly freezing cold, and the churn was already too full, so we did not wish to put water in it to warm it. I give no credit to the soda for making the butter come, nor yet to the saltpetre, which I learned afterwards had been put in. The fault was not in the churn. That very day we began scalding the milk before setting, and the next churning came in fifteen minutes.

The system of deep setting of milk in cold water, skimming while it is yet sweet, the milk used in the family, or in raising calves, pigs and poultry, the cream gathered up twice a week to some central place over a circle whose radius may be ten miles, and this central place to be at a convenient point for railroad shipment, and there have machinery for making the best of creamery butter, would be a fine thing for this country, and is admirably adapted to our grain growing districts. We could thus reap the benefits of the highest prices for our butter, and also relieve the farmers' wives from much hard labor. The small farmer with four or five cows could thus realize more accordingly for his milk than the man who kept four times as many, because he could turn his skimmed milk to better account, and could sell his cream at his own door with no extra expense for hauling or marketing, and no risks to run from fires or thieves. This system is much to be preferred to the one in vogue near here a few years ago, of going from house to house and buying the butter right from the churn before it was worked or salted; by this means they could make what was called factory butter, of uniform color and saltness, but could never make a really gilt edged article.

This system of gathering up cream is extensively practiced in the west. I should like to see some live, honest man start something of the kind here. Why would not Hudson be a good locality?

As I am interested in a cheese factory, I want to say something about cheese making. It is not at all necessary for farmers to know the details of cheese making; because for the future, cheese will nearly all be made after the factory system, and the farmer only has to care for the cows, to see that they have plenty of wholesome food to eat, and pure water to drink; stagnant, filthy water is a fruitful source of trouble in making cheese. In dry, hot weather cattle are often compelled to drink such water, water in which they stand and fight flies for hours at a time. The milk of one lot of such cows will injure the whole batch at the factory, more than such milk would have been worth had it been brought in good condition. The sense of taste or smell is not acute enough to discern the exact condition of the milk or it might be sent back. Moreover the farmer must see to the proper cooling of the night's milk. Ice is not necessary if you have a good well. One bucket of water will usually cool the milk of two cows. Ten pounds of whole milk will usually make one pound of cured cheese, which ought to bring ten cents on an average in order to bring satisfactory returns to the farmer. This season we have done a trifle better than that. But last year I believe nearly every dairyman who made cheese or sent his milk to a cheese factory lost money. The past season I paid on an average to the patrons of my cheese factory, ninety cents per hundred pounds of milk. The difference in price between hot weather cheese and fall made cheese is very much too great. Most of the hot weather cheese is made so that it will ripen quickly, and if it ripens quickly it must be consumed at once or it deteriorates; you could not carry it over to another year any more than you could keep your potatoes over.

Michigan does not make as much cheese as it consumes. Large quantities are brought into this State from New York and Ohio. It would seem that if New York can make it pay on their high priced land, to make cheese and send it here, we certainly ought to make it pay, much better. How it looks for us to send hay to New York to feed to cows there, and then have the products sent back to Michigan for us to eat? This is practically what is being done this winter.

Discussion on the subject followed, by by J. A. Sawyer, E. Phelps, Prof. Johnson and others.

"Corn" was the subject of a paper by Prof. Beal. The topmost ear was best for seed; of two fields, one planted with seed taken at random and the other selected in the field, the latter yielded as much again as the former. Manure and cultivation may be thrown away on poor seed. The best time to cultivate corn is before planting. A shallow cultivation was recommended; 23 ears of corn can be produced from one kernel—by proper cultivation and the use of the best seed as high as 25 ears. Smut is a great damage to corn and smutty corn is very injurious to cattle.

AFTERNOON SESSION.

Before the commencement of the exercises a large number of the farmers joined the union.

The first paper was on "Farmers' Daughters, or the Girl on the Farm," by Mrs. F. G. Church, of Wheatland, who gave a pleasing account of her own girlhood. She was decidedly in favor of teaching girls to work, but would not neglect the other accomplishments. Would employ every art to make home pleasant and attractive. The charms and happy influences of sweet music should be invoked, and the most instructive and entertaining authors be their guides and companions. The speaker administered a severe rebuke to some of the pernicious dressing customs of the day which distorted and disfigured the female form divine, also the practice of face painting, all of which was simply a marring of nature's more perfect work, leading to disease and premature decay.

The next paper was by Secretary Baird on the "Production of Beef." In these days of sharp competition the careless farmer will be left behind. Commodities must neither be poor in quality nor costly in production. Beef yields but a small profit at the best, but is necessary and profitable as a part of mixed husbandry. The best dairy stock are the Ayrshires and Jerseys—Holsteins not fairly tested. The beef kinds are Shorthorns, Herefords, Devons and Galloways. The Devons are better adapted for Texas and the far west than Michigan. The Hereford grades, like Suffolk pigs, are always ready for market. Shorthorns most profitable for general purposes, although many of the cows are poor milkers, the grade having been bred so long for beef. In breeding use only pure bred males, having regard for both pedigree and individual excellence. Young animals are more profitable to feed than older ones. Better raise calves than buy steers. In the care of cattle, kindness means cash.

Prof. Johnson next read a paper on "Mixed Husbandry." Taking a series of years, mixed husbandry is better than giving special attention to one staple. Some succeeded for a time, for instance, by excessive cropping with wheat, but poverty of soil will inevitably follow. Mixed husbandry adjusts the work throughout the year. The care of stock gives pleasant work in the winter. Commercial fertilizers are not to be relied upon. The Prof. did not condemn fallow land, but thought it rather slow. Corn or a root crop is a better preparation, and the climate and soil of our State are adapted to these crops. Live stock is the most important factor in mixed husbandry, clover and plaster are the best fertilizers. Michigan is well adapted to stock raising and it pays well. Every true farmer strives to increase the capacity of his farm for stock; improved breeds are always the best. The dairy products of the country are greater than any other single product, except corn.

Mr. Frank Aldrich, of Pittsford, followed in an able and eloquent oration on "Farmers' Boys."

EVENING SESSION.

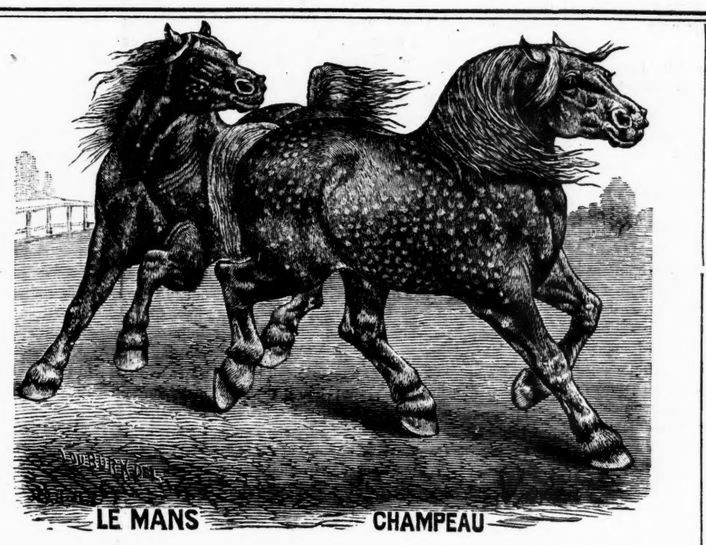
Opened with a recitation by Miss Bell Carson, of Hudson, entitled "Poor Man's Penny," which was ably and effectively rendered and heartily received by the audience.

Dr. A. R. Smart, of Hudson, followed with a very able and exhaustive paper on the subject of "Fools."

The closing remarks were made by Thos. F. Moore, "The Privileges and Duties of Farmers." The speaker aimed to point the way to a higher elevation in the social and intellectual scale of the large class engaged in the noble industry of farming. Education was the great lever. He suggested three practical ways for the better intellectual and material advancement of the farming community: First, better district schools, by giving women a voice in their management; 2d, by the establishment of graded schools in every town; 3d, by the admission of farmers' daughters into the State Agricultural College. These were privileges farmers might enjoy, and it was their duty to secure them. Among other duties was the eradication of the liquor traffic, to be brought about by giving the ballot to woman; and the regulation of railroad transportation rates, to be achieved by sending farmers to Congress.

On motion of C. B. Stowell, the State Horticultural Society were invited to hold their next annual meeting in Hudson.

The exercises of the evening were interspersed by music of a fine order, both vocal and instrumental, by a glee club composed of Mrs. G. J. Thompson, Mrs. Fred Wing, and Messrs. Smart and Salsbury.



Norman Horses, Imported by E. Dillon & Co., Bloomington, Ill.

A TRIP AMONG THE SHEEP BREEDERS OF WESTERN NEW YORK.

To the Editor of the Michigan Farmer.

As you requested me to give an account of the breeders of Western New York, whose flocks I visited in my hurried trip. I will summarize it as follows. Arriving at Leroy *via* New York & Erie Road, we stepped off the train to inquire of the Eagle buss runner, of E. Townsend, whose flock we intended to visit, and learned that he had left there the night before for Vermont, where he intended visiting some of the flocks of Addison County, and also to attend the annual meeting of the Vermont Sheep Breeders' Association, to be held on the 13th inst. Disappointed here, we quickly stepped back on the train to stop again at Avon to see Mr. Wm. G. Markham. Again we stepped off to inquire of his whereabouts, and being informed that he was seen about home that day we proceeded to his farm, two miles west, where we found his aged father and hospitable family, who informed us that W. G. was also gone to Syracuse to return in a day or so. After tea we were carried over to Messrs. Martin's, whom we found at home. Found Mr. George Martin's flock of breeding ewes very much improved, better in flesh, and culled out so as to leave them very uniform in size and appearance, and he told us also they were very uniform in breeding, they were remarkably good in form, a point the Martins have always striven to attain, and also very dense in fleece (but not long), another pet point with them. He showed us the eight ewes sold to E. B. Welch, of Paw Paw, Mich.; they were a fine party and will be a valuable acquisition to that part of the State. His ram lambs had improved very fast since we saw them in September, and must cut heavy fleeces; his ewe lambs were also very much improved, but showed a marked difference between the better and poorer ones; he had six very choice ones, and beside some mediums, had four or five very poor ones. At Peter Martin's we saw the ram lambs that had been purchased by Mr. Cate, of Highland, Mich.; a very fine one sired by "Result" and the choice of Mr. Martin's crop this year; he had a good head and neck, heavy with folds as was his body throughout, with the promise of a well set fleece, and in our judgment will make the best ram Mr. Cate has ever placed at the head of his flock, in fact he was good throughout, and the only fault we could find was a little tan mark on lips.

Mr. P. Martin's breeding ewes are perhaps the most wrinkley of any flock we ever visited, they are of that type which has been described by him, and once seen can be told wherever found; having short necks, and chunked bodies with heavy folds well covered with thick wool, not long, nor as fine as some breeders have. He had sold most of his lambs, not being pleased with them, although he had a goodly number to show of those he had purchased, added to the best of his own.

While there we learned of the death of his stock ram "Result;" he says he must breed a stock ram from his flock this year or he will be at bay. It is encouraging to the younger breeders of this State to see these gray haired veterans make mistakes and driven to the wall for a backing. We can see in it the dawning of headquarters moving "westward," (Mr. Editor, please don't make a mistake and call that "to Michigan." The object of our visit being to buy some stock, either lambs, yearlings, or breeding ewes, we divided up and part of our party stopped at Victor, Ontario County, to look over Mr. S. S. Lusk's flock, who has bred his flock from the Messrs. Martin's. Here we found Mr. Lusk busy in finishing up a costly mansion, one of the finest and most costly it was ever our lot to see, if not the very best for a farm. This gentleman's flock has been described in full by describing the Martin's; it being the same type and of the same value as near as one could judge from examination; having been bred up from purchases of full crops of lambs of both brothers, and some times the tops, and having used the same rams; *viz*, Old Wrinkley by Torrent, Empire by Torrent, Compact by Trump by Torrent, Robin Hood, Little Monitor, and this year a ram by Compact, bred from the flock; has also used General, bred by L. P. Clark, and last year used the ram L. P. Clark, by the General; this crop of lambs we were in hopes to buy, but did not.

Those of us who went further pushed on to Skaneateles, N. Y., where we had learned that J. Horatio Earll, a young man, had started on the old homestead, (where his father and he still live,) in 1867, had bought five ewes of C. D. Sweet, of Vermont, which came through Jesse Hinds, of Brandon, from the flock of Edwin Hammond; and afterward bought one ewe more bred by E. Hammond. And from these six ewes which were in lamb to Young Peerless, 125 (A. M. R.) bred by C. D. Sweet and sired by Peerless 24 (A. M. R.) bred by Hammond and sired by Sweepstakes, he has bred to this day his present flock of fifty ewes including yearlings. Never having bought a ram and having used decendants of Young Peerless 125 on both sides till he took ewes to Addison, 100 A. M. R. where he got the ram Batavia 167 and afterward took ewes to Genesee, a son of Addison. I will give the rams used in this flock since its foundation, to show the remarkable extent of inbreeding which has been carried on. I doubt if another case can be found since the days of Edwin Hammond. Dandy 163 was first used. Peerless 3d 164 was next used, whose sire and dam were both sired by Young Peerless 125. Then Skaneateles 165, then Spafford 166, then Batavia 167, then Alphonso sired by Genesee, who was sired by the same sire as Batavia.

Having been an advocate of in and in breeding, and having practiced it to a great extent in my own flock, you will pardon me if I state a few facts which came under my observation in this flock. Mr. Earll informs me that his ewes are excellent milkers, and that they were prolific as breeders was evident. He has never had a case of goitre, he tells me, since he made these purchases, having had it in his other sheep previous; it may or may not have had any influence on account of blood or family, but I mention this fact, simply to show that they were perfectly healthy. Like many other flocks they are large in size, and on stepping into the shed from his office, which joins it, I was struck with the appearance of the heads and faces of the flock, I have never seen as white and even a lot of noses and ears; there was also a very striking similarity in their forms and general appearance. Here also could be seen a fault as fully developed and as evenly distributed throughout the flock, that being a long thin ear. Mr. Earll informs us that they are heavy shearers, and some of his neighbors who were present stated that they never saw stronger lambs when first dropped than from these ewes.

This remarkable instance of in-and-in breeding stands on record as proof that it does not necessarily render our flocks more weakly, or less prolific, or cause them to be smaller or less thrifty, although other experiences may point contrary. In my opinion in-and-in breeding intensifies a quality, whether it be good or bad.

We could not resist the temptation to draw a few specimens from this flock, and with the assistance of Peter Martin, seventeen ewes were selected, barring the two best, and three ram lambs were also selected and transferred to the farms of H. R. & D. P. Dewey when we are in hopes to continue the line of breeding to good results.

Yours truly

D. P. DEWEY.

SALT ON WHEAT.

To the Editor of the Michigan Farmer.

SIR:—At what season of the year do you sow salt upon growing wheat, and how much do you sow to the acre. How do you apply it?

Yours,

S. L. FULLER.

GRAND RAPIDS, Jan 13, 1881.

So far as we are aware there is no established rule known for the application of salt to wheat. In some instances it has been applied in the fall, after planting, and in others early in the spring. Some two or three cases have come to our knowledge where farmers have had excellent results from its application as soon as possible after the snow was gone in the spring. The amount applied varied from 250 to 400 lbs. to the acre. It should be spread as evenly as possible, the same as plaster. In some experiments made in Canada within the past two years, the salt was sowed upon the wheat in the fall in the same manner as plaster, and was very successful. It undoubtedly strengthens the straw, and gives a better color to the wheat. Whether it adds to its productiveness is a question that those who have tried it do not always agree about. We think that where it does not it is because the land did not require it. In England, where it would naturally be supposed its application would be useless, the results from its use are said to be more decided than any that have yet been reported by farmers in this country. Perhaps the experiments made were carried out more thoroughly. In one case in Canada a piece of land intended for wheat was plowed in the fall, and again in May. It was then sowed with salt, and afterwards plowed before seeding. On September 1st it was planted with two bushels of wheat to the acre, and the crop when harvested yielded 40 bushels of fine quality to the acre, with a luxurious growth of straw. The amount of salt used in this instance was 300 pounds to the acre.

FEEDING SHEEP.

COLDWATER, Mich., Jan 2, 1881.

To the Editor of the Michigan Farmer.

I have just commenced to take the FARMER, and like it first rate. I was much pleased with the articles relating to feeding sheep, &c. I am feeding some sheep, too, this winter. They will average over a hundred pounds. I am feeding them 24 qts. of corn, 16 qts. of ground feed, ½ oats, ½ corn, and 1-2 shorts. Now, what I wish to know is, whether I am feeding enough, (there are 53 sheep). I feed them what hay they will eat once a day, and good corn fodder once. Will you also tell me how much of the ground feed above mentioned it will take to equal a given quantity of the whole corn in fattening qualities?

I would very much like to know how to construct a fodder rack and grain trough combined, that will prevent the chaff and hay seed from falling upon the sheep while feeding, to be so constructed that the sheep can feed from both sides.

Truly yours,

WM. W. COLE.

Horse Matters.

The Trotters of 1880.

Below we present a most interesting exhibit of the notable performances on the American troting turf during the season of 1880, showing the horses that trotted in 2:27 or better, those who reached or went below that figure for the first time, and those who improved upon their records in previous years. The tables will repay study, as they demonstrate an astonishing increase in the speed of the American trotting horse—a rate of development which, in a few years, bids fair to bring about results not hitherto believed possible. Of the 124 horses that trotted in 2:27 or better, 61 reached that figure for the first time, while 63 horses of a faster grade improved upon their previous records. Among the most extraordinany performances of the year were the 2:10¾ of Maud S., 6 years old, and the 2:25½ of the 2-year-old Fred Crocker, owned by Gov. Stanford, of California. The list of horses that accomplished 2:27 or better, for the first time, is as follows:

2:27 OR BETTER, FIRST TIME.

Maud S., ch m, Chicago, Sept. 18,.....2:10¾
Hattie Woodward, b m, Buffalo, Aug. 7..2:15¼
Parana, b m, Boston, Sept. 7,.....2:19½
Piedmont, b h, Chicago, July 21.....2:21½
Kentucky Wilkes, blk h, Buffalo, Aug 6.2:21¼
Alexander (France's) (1), blk h, Milwaukee, June 11.....2:21½
Black Cloud, blk h, Chicago, July 22...2:21½
Lady Rolf, b m, Louisville, Oct. 5.....2:22½
Palma, ch g, East Saginaw, June 18...2:22½
Hector, b g, Rochester, Aug. 12.....2:23
Alcantara, b h, Louisville, Oct. 8.....2:23
Edwin Thorne, ch g, Boston, Sept. 2...2:23½
Gray Cloud, g h, East Saginaw, June 18.2:23½
Lizzie H., ch m, East Saginaw, June 16.2:23½
Nancy, ch m, Boston, Sept. 25.....2:23½
Minnie R. b m, Cynthiana, Oct. 21.....2:24
Tommy Dodd, r g, Sacramento, Sept. 21.2:24
Kate Sprague, br m, Chicago, Sept. 16.2:24
Pickard, b g, Hartford, June 24.....2:24½
Leontine, br m, Cincinnati, Nov. 3.....2:24½
Wilbur F, blk g, Hartford, Aug. 26.....2:24½
Stonewall, ch g, Washington, Oct. 9.....2:24½
Charlie Champlin, b g, Prospect Park, May 31.....2:24¾
Abdallah Boy, b h, Toledo, June 24...2:25
Del Sur, blk c, Sacramento, Sept. 24...2:25
Valley Chief, g h, Hartford, June 24...2:25
Elsie Groff, b m, Earlville, Ill., Aug.19.2:25
Josephus, ch g, Chicago, July 22.....2:25
Golden Giri, g m, Hartford, June 22...2:25½
Lumps, b h, Cynthiana, Aug. 22.....2:25½
Florence, ch m, Rochester, June 5.....2:25½
Calamus (2), b m, Minneapolis, Sept. 8.2:25½
Fred Crocker (3), b c (2 years), San Francisco, Nov. 19.....2:25½
Alta, b m, St. Louis, Sept. 29.....2:25½
Bambrino Bell, b m, Cynthiana, Aug.27.2:25½
John Grant, b g, Chicago, July 20.....2:25½
Sir Walter, ch h, Boston, June 16.....2:25½
Emma Maxwell, b m, St. Joseph, Mo., Sept. 11.....2:25¾
Jerome, b g, Cynthiana, Oct. 21.....2:25¾
Prospect Maid, br m, Rochester, Aug.17.2:26
Alfred, b g, East Saginaw, June 16.....2:26
Brookside Flora, Poughkeepsie, June 9.2:26
Blanche Armory, b m, Cynthiana, Aug. 26.....2:26
Joe Bunker, g g, Louisville, Oct. 5.....2:26
George H. (4) br g, Albany, July 1.....2:26¼
Captain Herod, ch h, Prophetstown, Aug. 6.....2:26¼
Lady Martin. b m, Boston, Oct. 14.....2:26¼
Timothy, b g, Albany, July 6.....2:26¼
Sweetheart, b f (2 years), Sacramento Sept. 24.....2:26½
J. W. Thomas, ch g, Louisville Oct. 9.2:26½
Myrtie, r m, Chicago, Sept. 18.....2:26½
Parole, blk g, Waverly, N. J., Sept.23.2:26½
Uncle Dave, sp g, Prospect Park, June 4.....2:26¾
Crown Point, ch h, Sacramento, Sept.23.2:26¾
Captain Jenks, b g, Sacramento, Sept. 18.2:26¾
Fannie G, g m, Cynthiana, Oct. 19.....2:27
Chester, b g, Hastings, Mich., Oct. 8...2:27
Mollie Drew, ch m, Stockton, Cal., Sept. 30.....2:27
Helene, ch m, Providence, Oct. 21.....2:27
Donald, b g, Cynthia, Oct. 20.....2:27
Carrie F. b m, St. Joseph, Sept. 11.....2:27

The Norman Horse Again.

We have been handling Norman horses for many years, and have noted many changes of opinion in regard to them; parties who were formerly so bitterly opposed to them are now their strongest advocates. Have the horses been so materially changed? or is it possible the people have so wonderfully changed their opinion? That there has been a great change needs no argument. Were not the people so widely mistaken years ago when the Normans were being introduced? So blind that they could not see to their own interest? So blind that they ridiculed, burlesqued and oppressed in every manner a move that they now recognize to be one of the grandest enterprises that can be encouraged? Why did it take so many years of observation to learn that the introduction of the Norman horse was a blessing and not a curse, as it had been looked upon? But few persons are aware of the many difficulties and obstacles that had to be overcome by the few in the beginning of this grand enterprise. The oppositions met were not from a few, but were from the general public. The introduction of the Norman horse was generally considered a damage to the country, and certain ruin to the parties engaged in the business. And strange as it may appear, judging by their conversation as well as their actions, many would rejoice had this been the result.

The Norman horse in the United States, especially in Illinois, can in many respects be compared to many of our best statesmen. Starting in adverse circumstances, rising from step to step with all the opposing force that can be brought to bear against them, sneered at and burlesqued by those who were supposed to be horsemen, condemned on every hand, forced for a time to keep in the rear. If exhibited at the fairs they were passed upon by a committee of jockies that would rather cut their throats than feed them. In this way they were kept back until a few persons picked them up and brought them first in sight; then in company, alongside, and afterwards in front, and now they are taking the stand and speaking for themselves without being molested or intimidated. Normans are not generally considered fast, but, like the tortoise, they have kept in the track so faithfully that to day their record, financially stands No. 1. In times past it was said of the Norman: "You are but a coarse, ugly draft horse, not worthy to be seen in our company; we have no class for you at our fairs, but if you want to make an exhibition of yourself you may go back in the brush and we will send some of the jockies to decide as to your merits, and if they think you are worthy we will give you a ribbon, but the prize for a draft horse must not be as much as for other classes."

The majority of them were handling trotters and runners, and it would insult them if a draft horse should get as large a premium as their favorites. That it was then, but now they say, "When saw we thee an hungered and fed thee not, or athirst, or a stranger and did not minister unto thee?" Then the draft horse men had no rights that managers of fairs were bound to respect. Now it is, "Gentlemen, owners of draft horses, is there anything we can do for you?" Query: has the Norman horse been so much improved, or has the minds of the people so changed? With such a change are not these questions worth considering?—*E. Dillon & Co.*

Farm Matters.

OUR FRENCH LETTER.

Theories of Alimentation—The Cost of Preserving Corn Fodder in Trenches—Manures.

PARIS, December 30.

M. Paul Muller has created something like a sensation by his assertion: "The theories of alimentation, as held at present, are purely empirical; they repose upon no experimental science, and that there is no equivalent between feculent and fat." He then proceeds to quote the opinions of the most eminent chemists, and to signalize their contradictions and inconsistencies. Without accepting all the assertions of M. Muller as infallible, his hardy challenge to fellow chemists and physiologists will have this much beneficial consequence, to promote re-examinations and extra careful experiments, on perhaps bases dictated from other points of view. Sweeping opinions generally leave exposed a few weak points in their armour. Professor Sanson has demonstrated that the elimination of carbonic acid by the lungs, is purely a physical phenomenon, effected directly in proportion to temperature, and indirectly in ratio to pressure. The production of carbonic acid is the product of very complicated reactions; it is not exact to conclude that respiration is the source of carbonic acid, or that the heat, generated by combustion, becomes transformed into an equivalent of mechanical power. M. Berthelot has lately re-proven that fatty substances yield a quantity of heat, a little less than their combustible elements, and saccharine matters a little more. During rest the chemical reaction of the muscular juice is neutral or alkaline; when muscular work has been excessive, the elimination of products is not sufficiently rapid to carry away the materials of decomposition; lactic acid is formed in excess, and hence the reaction on the muscular fluid is acid; this acidification causes fatigue. Ranke has produced fatigue artificially, with injections of lactic acid. Pending that the muscles work, the heat produced is divided into two parts; one sensible, and the other, which is transformed into mechanical force. Nitrogenous matters are aliments of force, and Kellner has shown that there is a relation between the amount of muscular force effected and the quantity of urine eliminated by the kidneys. Alimentation remaining invariable, diminution of work, is followed by reduced elimination of nitrogen and an increase of live weight Wolff has pointed out, that in the animal organism, the heat developed by combustion cannot be connected with motive power or force, as in the case in a steam engine, because the body wants the conditions of the machine—a condenser as well as a boiler. In determining the value of a food, as is somewhat the case in the preparation of fertilizers, it is not the quantity of nitrogen present that should determine value, but the proportion assimilable of that nitrogen. In a word the importance of a food should be estimated, not by the brut amount of nitrogen, but according to the quantity of immediate principles present.

M. Chedville gives the results of his cultivating 10 acres of maize for preserving in trenches for winter and spring feeding. He estimates the maize as mown at 12 francs the ton. The expenses per acre were 192 francs, the yield 243 francs net, profit 51 francs. But to this must be added the value of the manure produced by feeding stock, as also of a capital spring crop of vetches, in addition to the excellent manuring of the soil for the maize, and which tells on the succeeding wheat crop. Green maize sown in May and cut in October is simply an intercolary or stolen crop.

M. Boussingault in a recent discussion on manures, observed that caution ought to be exercised in applying urine to meadow lands, as if the liquid concentrates in a particular spot the less robust grasses will be destroyed. Professor Petermann, of Belgium, has a very favorable opinion of African guano, as imported from the isles of Pamona, Halifax, etc.; it is a fine, clear brown powder, slightly ammonical; it is the most rich of all imported guanos in nitrogen, proof of its recent formation, as further evidenced by the presence of feathers. In respect to phosphoric acid, it is less rich than Peruvian.

An Oceana County Stock Farm.

A recent issue of the Pentwater *News* contained some interesting notes in regard to the stock farm of Mr. S. A. Browne, near that place. We give place to it for the purpose of showing how improved stock is being introduced into a section that most people regard as being wholly given up to lumbering. The *News* says:

"While everybody acknowledges that Mr. Browne's Golden Stock Farm is one of the finest farms in Northern Michigan, considerable speculation has been indulged in, as to whether it paid. Taking into consideration the time that Mr. Browne has had it, the condition in which he received it, and the necessary expense to make it what it now appears, one would scarcely expect a very large dividend on the amount expended. Being interested in that class of farming which improves the country and its stock, we have watched Mr. Browne's course with no little interest, and at our request he has furnished us a few figures as to the sales of stock from the farm during the past year. He sold during the past year his Shorthorn bull Bruno, to the late John Parker, of Kalamazoo, Mich., for $150. He has recently sold and shipped to J. M. Lane, of Corinth, Kent Co., Mich., the bull calf, nine months old, Duke Gwynne, for $100. He has sold for breeding purposes, pigs to the amount of $120, cattle $425, horses and colts $1,200, making a total from sales of stock during the year of $1,995. In addition to this he has raised and sold a large quantity of grain and other form produce.

"He has lately purchased in Pennsylvania for his farm, as fine a pair of Berkshire pigs as there is in the State, at a cost of $100. They are from imported stock, and are ideal specimens of that popular breed. A general invitation is extended to parties to visit the farm and see them. Among the purchases for the year is the mare Spinella, five years old, by a son of Rysdyk's Hambletonian, can trot in 2:30. Dazzle Golddust, seven years old, by Old Golddust; in foal to Grand Sentinel. Jennie, by Nighthawk; dam by Vermont Hero. This is a standard mare, and one of the best brood mares in the State; is the dam of a 2;30 trotter and is now in foal to Grand Sentinel. Scotia, the dam of Spinella, and one that has beat 2:30, will also be bred to Grand Sentinel the coming spring. Serenade, by Am. Clay; dam by Green's Bashaw, another standard mare. Mr. Browne's stable is not excelled in point of speed, good looks and breeding, by that of any breeding farm or private stable in the State of Michigan. He has three that can beat 2:25, four that can beat 2:30, a three year old that can beat 2:40, and three others, same age, that can trot in 3 minutes; a two year old by Grand Sentinel that can trot now in 3:30. With Grand Sentinel and Indicator as stallions, and Lady Turpin 2:23; Shadow 2:27; Spinella 2:30; Jennie 2:40; Dazzle Golddust 2:50; Amethyst (by Mambrino Gift) 2:20; dam, a mare that trotted in 2:32; Serenade, a three year old that can beat 3 minutes, and Scotia, the dam of two 2:30 trotters, it will be seen that a better array of speed and fashionable breeding is hard to find, not only in this State, but in the Northwest."

Destroying Canada Thistles.

C. C. Young, in the Ohio *Farmer* tells how to destroy Canada thistles for all time, and as several inquiries have been made concerning the best method of eradicating them, we give it entire:

"As soon as they appear in the spring, strike them off with a sharp hoe below the lower leaf, or even with the solid earth; repeat every time a sprout starts (which will be feeble), and they will be almost totally eradicated the first season. Now I don't mean half do it, and then pay the prescription is a humbug. Cultivating increases their growth as it does your corn, with all stalks not interfered with. They cannot live without a top. I have destroyed many patches by the roadside and several on my farm, and have never failed. There is no use digging up the roots, as they reach nearly to China, and I don't know but they come out on the other side of the globe. My father dug a cellar in the State of New York when I was a boy (when Canada thistles covered the whole country), and at the bottom of that cellar in the hard-pan we found a plenty of Canada thistle roots. Mowing closely when in full bloom will check them very much, but the only sure death is as above stated, and if a few appear the second year, repeat the same; but if thoroughly done the first year, as often as one makes its appearance, you will seldom see any the second year. Anyway, to keep the top entirely off is sure death in a short time."

A Joking Experiment.

The following account of the origin of an experiment in potato growing, from the *Dublin Gazette*, shows that the salesmen in the Emerald Isle have the same habit of "quizzing" customers whom they suspect of verdancy which prevails among the brethren of the order in Detroit.

"Joliffe Tufnell" writes: "In April last I was purchasing some ironmongery, when I espied what appeared to me to be aa unusual form of scoop. I asked the young man behind the counter what it was for, and was told that it was made in the year after the famine in Ireland, for scooping out the eyes of potatoes for seed, and leaving the rest of the tuber for seed. Being struck with the desirability of testing this method, I purchased the scoop, and taking a Rock potato weighing 5 1 2 ounces, and having nine eyes. I scooped these out—their weight being 1½ ounce, and planted them in good soil in an ordinary garden. Eight of the eyes lived and produced 114 potatoes, 52 of which were small, but large enough for seed; 38 were table potatoes of ordinary size, and 18 were very large, only 11 showed signs of disease."

The joke was, the scoop for which the vivid imagination of the Hibernian salesmen invented so historic a use was simply one used by cooks in preparing carrots and turnips for soups, or haricots. Had it not been for his propensity to afford information upon all topics, this experiment would probably never have been attempted.

The Largest Farm in the World.

is the Sullivant farm, Ford Country, Illinois consisting of forty thousands (40,000 acres. It is owned by Hiram Sibley, Esq., Rochester, N. Y., who is also proprietor of the Howland Island farm of 4,000 acres, near Syracuse, N. Y., and about four hundred other farms of various sizes in that state and the states of Illinois and Michigan. Not only is Mr. Sibley the largest farm owner in the world, but he is also engaged in railroad enterprises, being sole proprietor of a railroad in Tennessee and largest stockholder in three other Southern roads. He was for fifteen years president of the Western Union Telegraph Company, in the organization of which he was an active mover, and was also contractor for the construction of the Pacific Telegraph across the continent, Mr. Sibley is emphatically a self-made man, and though now past seventy years of age, seems as active and full of business as ever. During the past few years he has become very largely interested in the growing and sale of all kinds of seeds, a business which of late years has assumed immense proportions. The firm of Hiram Sibley & Co., Rochester, N. Y., occupy a mammoth eight-story warehouse, and do no small share of the seed trade of the country. The name of Mr. Sibley is sufficient assurance of their undoubted responsibility: and the fact that they raise so large a portion of their stock on their own grounds enables them to guarantee its quality. We have been favored with a copy of their catalogue for 1881, an announcement of which may be found in another column. It is sent free to any address on application.

Value of Clover as Manure.

"One ton of green clover," says Dr. Harlan, "contains 12 pounds of nitrogen, 2½ pounds of phospheric acid, 9 pounds of potash and 1,600 pounds of water. Say that 15 tons by the middle of June are ready to cut down or plough in for wheat. If left on the surface as a green dressing a second crop will grow up and the two together will amount in tops and roots by the middle of August to 25 tons per acre. That will be 500 tons on a field of 20 acres, an amount of green manure which will contain 6,000 pounds of nitrogen. One peck of seed to the acre, at the rate of $10 per bushel, will make the nitrogen coat less than one cent per pound, and the green clover ten cents per ton. For 500 tons of green manure then, you pay $50. The doctor asserts that it will take 600 tons of barnyard manure to furnish amount of nitrogen equivalent to this, for which we should have to pay $900. He quotes Professor Johnson to show that the soil is constantly parting with its nitric acid, it being swept away by rains and by water courses. The Rhine, the Seine, and the Nile carry away from their adjacent countries "as much nitrogen every year as there is in 174,000,000 bushels of wheat or Indian corn!" The careful farmer will find that the best collector of this last treasure, which is constantly going from every farm, is red clover. It "stands in the highest rank." This plant, according to George Geddes, is the basis of agriculture. "It is used," he says, "for pasture, for hay, and for manure. Strike it out of existence, and a revolution would follow that would make it necessary for us to learn everything anew in regard to cultivating our lands."

Canadian Cattle Trade.

In view of the recent exposure of certain facts in the export trade of live stock from Canada by Alderman McShane, of Montreal, the following from the Liverpool *Journal of Commerce*, will cause a general smile among the cattle dealers of Chicago:

"In connection with this trade, which has now assumed such large proportions, it is worth notice that the Canadian Government, have, at great expense, established cattle quarantines at Halifax and Quebec, under the supervision of Professor McEachran, and have now agents in Liverpool, Glasgow and Bristol to watch over the interests of those engaged in the trade. The expenditure incurred by this step has proved to be fully warranted, as we learn that the opposition thus promoted to the Duke of Richmond's Contagious Diseases (Animals) Act has resulted in a clear profit of £4 per head, or, in round figures, on this year's importations, $1,000,000 in favor of Canadian producers. The growing importance of this branch of trade is amply testified by latest advices by Canadian mail. It appears that the shipments from Montreal, Quebec and Halifax during the season ending November 30 were: Cattle, 49,460; sheep, 81,553. The figures in 1879 were: Cattle, 26,176; sheep, 78,789; whilst in 1878 they were: Cattle, 18,655; sheep, 41,250. The rapid growth thus revealed is most satisfactory, and the indications all point to a continued increase during coming years. In the next season it is estimated that nearly, if not quite 100,000 cattle will be shipped from the Dominion to Great Britain, and at the end of five years the figures will probably have reached 200,000 head. It is important, also, to remember that every one of the cattle shipped in the past season have been Canadian bred, not a single head being imported from the United States for export."

OVER fifty head of Jersey cattle, among which was a bull valued at $1,500, were burned to death by the destruction of the Coleman barns, in Lancaster county, Pennsylvania, on Saturday last. The estimated loss is $43,000.

Agricultural Items.

PROF. W. J. BEAL, of the Agricultural College, pronounces the quality of the White Elephant potatoe "as good as the Early Rose."

INCREASED production of fodder crops calls for increase of stock, which increases the manure pile, thus increasing the fertility of the soil, finally securing a further increase in all the crops.

FOR shipping to Havana and other semi-tropical latitudes the Harrison potato is thought to be preferable to the Early Rose. The Harrison is a larger yielder, giving from 200 to 300 bushels to the acre where the Rose gives only 100 to 150 bushels, and the Rose is therefore the highest priced. Many believe the Dunmore to be "the potato of the future" as it yields large crops, has few small tubers, and is fine for the table. The Goodrich is a good shipping potato, but not raised much.

THE *American Cultivator*, in response to an inquiry says that notwithstanding so many early potatoes are received at our seaboard markets from the Island of Bermuda during their season, it is nevertheless true that, owing to the warmth and humidity of its climate, and the absence of native grown tubers, there are periods of the year when its dependence is almost solely upon the United States for potatoes. In fact Bermuda depends upon American potatoes for seed. Garnet Chili is almost the only variety of potato planted there, and the supply comes principally from the vicinity of Utica, N. Y. Shipments of American grown potatoes are frequently made to Bermuda in the fall from Maine and Massachusetts. The Harrison potatoes, raised largely in New York, are largely sold in Cuban markets, notably in Havana. This potato is of tough fibre and is mostly sliced and fried by the Cubans. Exports of potatoes are generally made in barrels. The packing process is quite an item. The potatoes are held firmly in their places by means of the pressure of a screw on a circular surface that exactly fits the head of the barrel. When this is properly done the motion of the ship does not injure the potatoes.

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IT is the eyes of other people that wound us.

J. Stenchicum, of Bloomville, Ohio, says his child was dangerously attacked during the night with croup He gave it some of St. Johns Cough and Consumption Syrup, immediate relief was afforded, and the next day the child was perfectly well, His son had been afflicted with a cough bordering on consumption, of about a year's standing. He was pale, feeble emaciated, and unable to do anything. It was thought he was rapidly hastening to the grave, and nothing but a miracle could save him. Another son had died with consumption; and just before his death called hif brother to his bed, and told him he must follow him to another world in six months He heard of the wonderful virtues of this syrup, took it and has been restored to health.

Mrs. E. Campbell, a lady seventy years of age, residing at Mexico, Ohio, was afflicted several years with a very severe cough, and was cured by the use of St. John's Cough and Consumption Syrup. She says, she is now never troubled with a cough, except when she takes cold, and then St. John's Cough and Consumption Syrup always relieves her.

J. Green, Osceola, Mich., says an epidemic prevailed there extensively called Lung Fever. It entirely baffled the skill of their physicians, and usually proved fatal in a few days, until St. John's Cough and Consumption Syrup was used. This proved effectual in every instance in curing the disease. The demand for this Syrup became so great that his supply was soon exhausted.

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Horticultural.

HORTICULTURAL HINTS.

"T. T. S." in the *Gardener's Monthly*, gives his method of fighting black Aphis as follows: "I obtain crude carbolic acid; I use it in this form because it is stronger and better for the purpose, and costs but very little (about 25 cents per gallon, I think). I pour a quantity of this dark crude acid into a quantity of good strong domestic soft soap; stir well together, and allow to stand for a few hours. I then test the compound by mixing a little of it with soft water. If too much acid has been added, oily particles of carbolic acid will be observed floating on the surface. This shows that more acid has been put in than the soap will incorporate or 'cut,' and more soap should be added to balance the excess of acid. The refined acid may be used when the crude is not at hand. When prepared as above, make a moderately strong suds, and apply with syringe or sponge. In using on very delicate plants, should any fear be felt for the plants, in can be rinsed off after a few minutes." The same writer adds: "My first and eminently successful use of this compound was some years since, on a block of young cherry trees, some fifty thousand in number. The black aphis 'came down like the wolf on the fold,' only 'they came not as single spies, but in whole battalions.' It soon became an interesting question as to who was the proprietor of this particular block of trees—myself or the 'bug Ethiopian.' The trees were alive with aphis. The only scarce things on the trees were leaves, there being hardly enough to afford 'standing room' for all the dusky guests. However, not being a convert to the doctrine of 'squatter sovereignty,' I declared war, and failing to decrease the number by ordinary means, I compounded soft soap and carbolic acid, and with a single application exterminated the enemy."

A number of horticultural journals have testified to the beneficial effects of salt upon plum trees affected by the "black knot." "Farmer's Wife," in the *Country Gentleman*, tells how she treated trees under her care, and the results of her prescription. She says: "I had heard that plums were indigenous upon the sea shore and islands in the ocean. I had quite a quantity of fish brine and salt cucumber brine, and I gathered it all, and with a small mop washed the trunks of the trees, and gave the boughs a good shower bath of the brine. What was left I turned around the roots of the trees. Two trees I left unwashed. Everybody said I had killed my trees. Perhaps I had; but the black knot would have killed them if I had not. I bought the trees myself, and had a right to experiment upon them if I chose. The last of May my salted plum trees were one mass of bloom, and in September I could sit down under them and eat all the plums I chose. They were delicious. I had the Lady Washington, the large white Egg plum and Apricot, and some other varieties that I could not name, as the labels were effaced. The trees that did not enjoy a salt bath did not blossom or fruit; made little growth, and the knots put in an appearance. My plum trees are all alive, and not a sign of disease is to be seen, either on branch or twig, and the bark is bright and smooth. I state the facts as they occurred, and leave it to chemists to give the reasons for the results."

Prof. Husmann, horticultural editor of *Colman's Rural World*, thus describes a new seedling grape named Green's Golden. "We have no other grape, to our knowledge, which has the same color—a deep golden, almost bronzy tint—which is peculiarly inviting. We think that this will prove a fine grape for family use at least, and we hope also for market, although its thin skin may not allow it to carry well. We think, however, that it will bear transportation as well as Concord, if not better. It is a great bearer, very healthy, bunch loose, handsomely shouldered, so that every berry can fully develop. Berry fully as large as Concord, round, deep golden color, sweet, juicy and fine flavored, with little pulp. Ripens about the same time as Concord, but will remain till the first week in October, showing that it hangs and keeps well."

The *Gardeners' Chronicle* says that the three varieties of apples recommended by noted fruit growers for market purposes in Great Britain are: Echlinville Seedling, an Irish apple, raised more than half a century ago near to Belfast, bearing large and handsome fruit—an excellent culinary apple, and a free and reliable bearer, in use during the last three months of the year. Stirling Castle, a valuable early variety for culinary purposes, coming into use early in August, and bearing immense crops of fruit; and Warner's King, a very favorite culinary apple of the finest quality, bearing large and weighty fruit, in use from November till March. The value of these three varieties for market purposes lies in the fact that the trees bear in a young state, they crop heavily and pretty constantly, while the fruit is in each case of taking appearance and fine quality.

THE OLIVE.

The culture of the olive has for some time past been an industry of considerable importance in California, there being in 1876, about 38,000 trees in the State, of which the County of Los Angeles claimed nearly a third. Horticulturists claim that the olive can be successfully cultivated in Florida, and considerable attention has been given to the subject. The olive cannot endure a temperature below 21 or 22 degrees, and as it is a slow bearer, not coming fully into fruit until ten years old, though yielding a small crop at a comparatively early age, it is essential that a plantation of these trees should be located where they will enjoy an immunity from frosts.

The olive—*olea Europæa*—is indigenous to the southeastern countries of the Mediterranean, and trees in those localities sometimes attain a great age. At Beaulieu there is an olive tree which, four feet from the ground, is twenty-three feet in circumstance, and is estimated to be at least a thousand years old, but which, in spite of its great age, is yet remarkably fruitful, its yield being 375 pounds of oil annually. The mission trees, at San Diego, are eighty years old, and the average yield to each tree is ninety gallons. Very aged trees are only found in the warmest and most sheltered parts of the Riviera, in Italy, because of severe frosts which have at times destroyed the trees on whole districts devoted to olive growing. The trees root with the greatest ease, and in southern Spain large limbs from old trees are often planted, being sunk four or five feet in the ground, and earthed up on the surface with clay. The finest fruit is grown in the vicinity of Seville, Spain, and the best oil sent to America comes from Aix, France. In Rhode Island more olive oil—from cotton seed—is made and sold than is imported into the United States, and old sweet oil bottles are shipped there by the thousands to be refilled, being re-labeled and repacked as imported oil.

At Marseilles, France, large quantities of second grade fruit are pickled or preserved, by being left in a brine of diluted lye and lime-water till the stone can be readily removed; they are then soaked for nine days in clear water, the water being changed every day, and then put in strong brine flavored with coriander seed. The flavor of the olive, either fresh or pickled, is peculiar to itself, and possesses the power of displacing any previous sensation which may have affected the palate, so that at banquets and State dinners where different wines are served with the various courses, and connoisseurs desire to enjoy to the full the flavor and "bouquet" of each, resource is had to olives to destroy the "smack" of these previously tasted. A good story is told of a certain Congressman, who in the earlier days of the Federation was returned from what was then the "Far West" of Kentucky. Prominent among his supporters was a native "Kaintuck" of more wealth than breeding, and greater experience in tobaceo growing than in the intricacies of a dinner *menu*. But he went to Washington to see the sights, and as in duty bound called upon the representative of his section, who invited him to dinner, which was served in a very elaborate style. Among the wines was champagne, which met with much favor from the rural member, and a dish of olives being presented him, he accepted a specimen. Taking a huge bite, he made a desperate attempt to swallow it, but could not get it down and finally brought his fingers into requisition to re-convey it to his plate. With a countenance expressive of disgust he turned to his host and remarked: "Yer cider is bully, but blarst yer pickles."

Training Vines Overhead.

In the *Western Agriculturist*, Mr. A. J, Caywood, of New York, gives his method of training vines:

"The trellis is made in the following manner:—Pieces of boards six inches or more wide and three to four feet long are nailed across the tops of all the posts, representing a cross; three or four wires are drawn across the boards; if three wires are used, boards three feet long are sufficient, with one wire drawn in the centre over the posts, and one at each end. These boards are nailed on the posts five and a half or six feet from the ground, the vine is then taken up to the wires without any branches, where it is divided into three or four arms, one for each wire, and all should be started and grown in one direction. If young shoots grow off the side and hang down, they are easily thrown over the top. The posts may be set close by the vine or in the centre between the vines, which gives ample opportunity to work the vineyard both ways with a horse; will save $10 per acre in hoeing under the wires on the old system. The birds cannot injure the fruit without resting on their wings while doing so, as the thick mass of foliage overhead prevents them from entering above. The clusters all hanging in open air under the wires are perfect in shape, not being tangled among the wood or bloom brushed off by the foliage, and thus suspended in a free circulation of air and covered above from the dew are not so likely to rot, and are perfectly screened from hail storms, the mass of foliage sometimes being a foot thick. The fruit being shaded from the sun colors perfectly, sweetens and ripens early. No grapes will ripen handsomely or perfectly in the sun. On this system the vine produces its fruit on the extremities, where it is always finer than that which is produced on arms nearer the roots, they are neglected, the sap being determined to the end of the vine. If a narrow roof of boards prevents grapes from rotting, six or ten inches of foliage over the clusters will hold all the dew. It is claimed that it is dew, not rain, which rots grapes. If vines are planted 10x10 feet (and experience has proved that more can be netted from vines at this distance than when planted closer), with three wires one foot apart, there would be seven feet left between the arbors for light and air. If the ends of the vines, which might occasionally grow off this arbor, should hang down and the operator be too careless to throw them over the trellis, the clusters would be yet hanging in open air, and not tangled in the vines, as they are under the present side system. If some should think that five or six feet of vine between the ground and the wire would be too much exposed to the sun (and I do not know that five feet would be injured any more than two or three feet, which is always exposed under any system), then the vines may be planted close to the post on the north side, posts being set twenty-five feet apart, and a three inch strip of thin board tied on the south side of the centre vine. If in certain localities it is necessary to bury vines in winter, this plan facilitates the work, as they will bend much easier, there being not so much stiffness or branches in the way. If bagging is found necessary, it can be done in half the time now required, as the clusters hang separate and below the wires. If necessary to use netting, one width cut lengthwise covers the whole under the side of the arbor. Another advantage of this system. The early frosts injure all leaves on the old plan; on the above plan the top leaves are injured and they protect the under ones for a much longer time."

Small Fruits.

The *Prairie Farmer* says: "The production of small fruits for shipment to our large cities to be sold on the market, has not been a very profitable business for several years, owing to the cheapness of the labor market and not to over-production. If the laborer and mechanic has steady work and steady wages, he gladly buys fruits at a fair price, but if his wages are small and his work uncertain, he dare not invest in these necessary luxuries of life. But there is yet room for hundreds of acres of small fruits that will pay well. Very few of our towns and cities of from one to five thousand inhabitants have their home markets as well supplied with small fruits as they should be, and many of them have no home grown fruits at all, and there are grand good openings for men with some capital, knowledge and energy to create a good business by hunting up such towns, and there planting small fruits. A good home market is the kind of a market that gives a profit to the small fruit grower. He can get much better prices than the wholesale prices of the great cities, and it is net; he has no freights or commissions to be taken out of it, besides he can get crates and many of his berry boxes returned.

A person commencing this kind of a business should produce all kinds of small fruits that will do well in his climate, in full supply, so as to have a regular supply throughout the season. Strawberries, blackberries, currents and grapes, will keep a continuous supply for the market each day, the same pickers and help can be kept right along, and no one variety of any of these fruits should be depended upon; it is much the best to have several of the best varieties of each, for the best may fail at times, and a very ordinary variety may come to the front at that particular time and prove very profitable. For instance, all admit that the Wilson strawberry is the best of all for market, but it blooms early, and its blossoms are easily injured by the frost. A late frost may spoil a most promising crop. If you have all Wilsons, your strawberry for that year is gone, but if you have other varieties, the season may be just right for them, and you get a profit, etc. For one who makes small fruit growing a business, a surplus is no loss. By this we mean, if he has more than the market will bear at a fair price, he need not gather the surplus; therefore it is better to have too much than not enough, and surplus can often be shipped with good profit."

Cultivating Cherry Trees.

The *Germantown Telegraph* says, in regard to planting cherry trees, that there is no tree that requires more careful handling and setting and attention than the cherry. Frequently those being transported from a long distance suffer sufficient injury to render them unfit for planting. In our own experience we have met with repeated loss in this way. The worst of the disappointment is, that after being set out the tree will give just enough signs of growing to induce one to let it stand until the whole summer and fall are past, thus depriving us of two opportunities to throw it out and plant another in its place. In all such cases we would advise in the first place, the cutting off of nearly the whole top, and then if it does not in the course of a few weeks give decided evidence of a fresh growth, remove it entirely. We have saved several by this sharp pruning, which are now fine, healthy trees.

But, in the first place, set out no cherry-tree that has not a full supply of roots, especially of small ones, and the stem of which is not free from bruises, from which they will never recover. Set with the utmost care, spreading out the roots their full length, and stake them firmly, but so that they will not rub by the action of the wind. Then cut away all superfluous top-branches, of which each one must judge for himself, and be careful that in digging and grubbing about the trees no injury is done to the roots or bark.

THE CITRON.—Inquiries are frequently made by housekeepers relative to the way in which citron can be prepared to resemble that exposed for sale in the groceries. The fruit which is sold in our markets and raised in our gardens is not the same as the preserved citron of the stores. The one is a species of melon, the other belongs to the genus *Citrus*, which includes the orange, lemon, and lime. The real citron grows upon a tree, and is often eight or nine inches long, and single specimens have been known to attain a weight of twenty pounds. The leaves of the tree are thick, glossy, and resemble in shape those of the lemon, the flowers are purple, and the fruit rough and thick skinned. The tree grows wild in the forests of Northern India, and is cultivated in the south of Europe and the islands off the coast. An effort has been made to introduce the citron into Florida, the success of orange culture in that peninsula having induced the belief that citrons might be profitably raised, but we are not informed as to the results of the experiment.

Horticultural Notes.

LADY apples sold in New York City during the holidays at from $6 to $7 per barrel.

PEACH buds in the vicinity of Madison, Wis., are reported as uninjured as yet by the severe weather. This is attributed to the dry weather of the fall, and the gradual advance and continued low temperature which dried out the buds, and enabled them to withstand the late "blizzards."

APHIDES are so numerous in the vicinity of Portland, Oregon, that orchardists are seriously contemplating the importing of green lacewings and syrphus flies, two classes of insects which prey upon the plant lice, hoping thereby to diminish the number of the depredators so that fruit growing may be assured.

THE *Germantown Telegraph* advises that the best time for cutting grafts is not, as is generally directed, in the fall, before severe cold weather sets in, but that grafts taken off in February, tied up, and buried in the ground under a shed, or in a dry place, are more apt to do well, and adds that if the grafts are carefully preserved and properly set, it makes no difference whether cut in fall or spring. Cherry grafts, however, should be always cut before the buds show any signs of swelling.

AT the late meeting of the Eastern Iowa Horticultural Society, Suel Foster, who has for a long time contended that pear growing might be made profitable on certain soils in Iowa, stated that he had changed his opinion, and that with him the easily grown strawberry, raspberry, and grape, would in future take the place of the luscious pears so hard to get. Other members of the society concurred in this decision, and stated that though a few bushels might be grown by amateurs, profitable pear-orcharding was not to be thought of.

GERMAN pomologists, in lists of favorite varieties of apples, include but few of our popular varieties, the Red Astrachan being the one most frequently mentioned, and this is added with the remark that it does well in occasional cases. The Golden Winter Pearmain, a fruit almost unknown to us, is included in about two-thirds of their lists, and the Alexander, Ribston Pippen, and other sorts not in the highest repute with us, are seemingly highly prized. It is to be hoped that the difference of soil and climate may influence for the better the quality and flavor of these varieties when grown in Germany, otherwise we cannot admire the taste of our transatlantic friends.

Apiarian.

Qalities in Bees, Improvement, etc.

To observing apiarists, and they are becoming very abundant in the United States, it is well known that some bees are far more valuable than others. Some colonies of bees, with no better chances than have others in the apiary, so far as the bee-keeper can see, give, often, two or three times as much honey. The Italians give us more surplus than the German or black bees, and it seems probable, though it may be too early to speak with certainty, that the Cyprian and Syrian races will surpass even the Italian in the quantity of their stores.

At the National Convention, which lately convened at Cincinnati, the statement was made that the light-colored Italian bees were superior to the darker ones, or, what means about the same thing, that the Americanized Italians are more valuable than the imported ones. This assertion seems to have been the voice of the Convention, at least the report gives no protest against it.

For one, I do not believe this statement. In fact I feel very certain that it is incorrect. My attention was called to the matter seven or eight years ago. At that time two of America's most able bee-keepers—the late Adam Grimm and Mr. E. Gallup—whose statements on matters pertaining to the apiary rarely needed other support than that given by their own opinion, both spoke out boldly in favor of the darker colored Italians. Since that time I have closely observed, and have always found that they were correct. I believe this opinion is also held by such authorities as Chas. Dadant, G. M. Doolittle, James Heddon and T. F. Bingham. At the Michigan State Convention last week, this opinion was unanimously sustained by all who had observed carefully in this direction.

On the other hand, Mr. T. G. Newman, for whose ability and judgment I have great respect, believes that the so-called "Apis Americana," (of course this should be Apis Mellifica, variety Americana), is to be the coming bee, if it is not so now.

Now I wish to urge an opinion, which I believe to be a fact, and a very important one, too, to the effect that so soon as we cease to import bees we shall find that our apiaries are deteriorating. I have found, with Mrs. Baker and others, that when I bought the beautiful light yellow bees which had been closely bred for a long time without any foreign blood being incorporated, that I had got bees that were as valueless as they were handsome. On the other hand, I have found my imported Italian queens, which, though as black as those of the German race, gave me invariably not only three banded workers, but those that could be counted on for right royal work. I repeat that these queens were very prolific, and their worker progeny always three-banded, though the bands were not of that bright yellow which characterizes our American-bred Italians.

Now I believe this matter is very easily explained, and a good reason given for the facts as I have stated them.

All the European bees, and this is peculiarly true of the Italians, Cyprians and Syrians, are bred under the most trying circumstances. From the rapid increase of bees, the limited pasturage, and the fact that nature is for the most part the breeder, with the three last mentioned races the struggle for life is intense. Color and beauty are of no account except as they aid their possessor. And so there is the most severe pruning. Those alone survive which can gather sufficient stores despite the drouth, and their numerous competitors.

Mr. Benton, who has spent the past summer at Larnaca, Cyprus, writes me that the drought upon the island has been very severe, and that unless he had fed he would have lost all his bees. Such hard conditions must of necessity breed a race of bees which we cannot expect to rival.

Our American breeders will be very slow to adopt the severe pruning which nature practices with relentless hand in Italy, Cyprus and Syria. Our breeders look to some fancied superiority, like white fuzz on orange shield, banded drones, golden color, etc. And we can hardly hope, because of such prejudice, even were there wisdom sufficient, for that hard, cold selection, which knows only genuine superiority, that nature always adopts.

I will, therefore, close by saying that the most progressive apiculture demands the frequent importation of these rigidly bred queens from Italy, Cyprus and Syria. —*Prof. A. J. Cook, in Farmers' Review.*

Importing Bees From Italy.

Rev. A. Salisbury, a correspondent of the *American Bee Journal*, which is now published weekly, and is very acceptable in its new form—thinks that with the improved Italian bees now on hand, and the Cyprian bees which have been imported the past season, American bee keepers will have the finest stock in the world, and says:

"With the bee-keepers of this country it is yet no doubt an important question whether we shall continue to import bees from Italy. The National Bee-Keepers' Convention, assembled in Cincinnati in November last, had before it the following as a test question:

Resolved, That the importation of Italian queens is no longer advisable, as an improvement of our present race of bees.

The resolution was laid on the table almost without debate. As "coming events cast their shadows before," it is not hard to divine the impression now resting upon the minds of our leading bee-keepers. The points of excellence so eagerly sought for by the enterprising American bee-master, viz: Good honey gatherers, longevity, beautiful to look upon, gentle to handle, and good powers of endurance, are to-day so strongly developed in the American improved Italian bee, that Italy is surpassed.

It is no longer a question, the Italian bee of Italy is not a distinct race, yet many of us once thought they were. Later investigation proves the fact that there are as black bees in Italy as anywhere else, even in the vicinity of Rome itself. If the first Italians imported into this country were a superior race of mixed bees, and have been bred up to a standard of higher excellence and beauty in this country, why continue to import inferior queens to our shores?

After this subject is thoroughly investigated, if found to be a step backward to drop the importation of Italian queens, let it be continued with great care, always to get the best Italy affords. If public demand says give us queens bred from imported Italian mothers, they must have them; or, on the other hand, if from the most excellent and beautiful improved American Italians, they will get them."

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JOS. C. WHEELER.
Cumberland Presbyterian Minister, Lebanon, Mo.

MORTGAGE FORECLOSURE.—Whereas default has been made in the conditions of a certain mortgage bearing date the 15th day of September, A. D. 1879, executed by Jette Bressler, sometimes written Jettel Bressler, of Detroit, Wayne County, Michigan, to Fritz Knoch and Mary Knoch, his wife, of the same place, and recorded on the 15th day of September, A. D. 1879, at 4 o'clock P. M., in liber 154 of mortgages, on page 248, in the Register's office for Wayne County, Michigan; and whereas the said mortgagee, by virtue of the interest clause in said mortgage contained, the interest not having been paid when due, and remaining in arrears for the space of thirty days after maturity, and up to the date hereof, has selected to declare the whole amount due and payable, although the period for the payment of the principal has not yet expired, due notice of which selection having been given said mortgagors, and there being claimed to be due at the date hereof the sum of $339 40-100 (Three Hundred, twenty-nine Dollars and forty cents), and no proceedings at law or in equity having been instituted to recover the same or any part thereof: Notice is therefore hereby given, that by virtue of the power of sale in said mortgage contained, I will sell at public auction or vendue to the highest bidder on WEDNESDAY, THE SECOND DAY OF MARCH, A. D. 1881, at eleven o'clock in the forenoon of said day, at the east front door of the City Hall, Detroit, that being the building wherein the Circuit Court for the County of Wayne is held, the premises in said mortgage mentioned and described as all of lot numbered two (2) of the Antoine Beaubien farm, said lot being situated on the east side of Antoine Street, between Congress and Fort Streets, in the City of Detroit, Wayne County, Michigan, according to the recorded plat thereof, to satisfy the amount due at the date hereof, the interest accruing, the costs and expenses allowed by law, besides an attorney fee of thirty dollars ($30), in said mortgage provided for in case of a foreclosure.

Dated Detroit, this fourth day of December, A. D., 1880.

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Attorney for Mortgagees.

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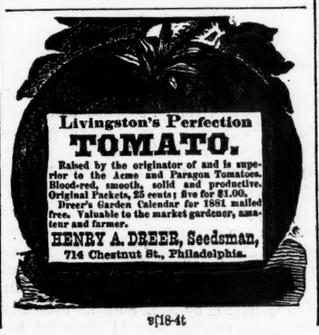

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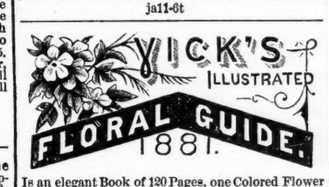

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TRAINS WESTWARD.

	Ev'g Exp.	Accom.
Ypsilanti	5.45 P. M.	8.25 A.M.
Saline	6.13 "	8.57 "
Bridgewater	6.30 "	9.15 "
Manchester	6.48 "	9.35 "
Brooklyn	7.17 "	10.08 "
North Adams	8 02 "	10.58 "
Hillsdale	8.22 "	11.20 "
Bankers	8.30 "	11.30 "

TRAINS EASTWARD.

	Detroit Exp.	Accom
Bankers	7.50 A. M.	2.30 P. M.
Hillsdale { Ar	"	"
Hillsdale { Dep	7.58 "	2.30 "
North Adams	8.17 "	2.45 "
Brooklyn	9.05 "	3.47 "
Manchester	9.35 "	4.15 "
Bridgewater	9.53 "	4.33 "
Saline	10.10 "	4.48 "
Ypsilanti	10 40 A. M.	5.15 "

Trains are run by Chicago time. All trains run daily, except Sundays.

WM. F. PARKER, Supt.,
Ypsilanti, Mich.

DETROIT, LANSING AND NORTHERN RAILROAD.

On and after Sunday, July 4th, 1880, trains will arrive and depart from Detroit as follows:

	Going West		Going East	
	P. M.	A. M.	P. M.	P. M.
Detroit	4:40	9:50	12:30	9.30
Plymouth	5:35	10:35	11:26	8:31
Howell	6:40	12:00	10:20	7:24
Chicago Junction	7:49	1:04	9:16	6:17
Lansing	7:55	1:10	9:10	6:10
Portland	9:05	2:25	8:22	5:00
Ionia	9:35	2.55	7:55	4:26
Greenville	10:30	3:45	6:52	3:20
Howard City	8:30	4:40	6:00	2:35
	A. M.			
Sheridan	8:45	4:30	5:56	2:42
	A M.	P. M.	A. M.	P. M.
Stanton	9.00	4.45	6.40	2.27
Edmore Junction	9.30	5.05	6.18	

A train also leaves Detroit at 7:30 a. m., arriving at Ionia at 12 o'clock noon; returning leaves Ionia at 1:15 p m., arriving at Detroit at 6:00 p. m.

CONNECTIONS.

Detroit, with Railroads diverging.
Plymouth, with Flint & Pere Marquette R'y.
Howard City, with Grand Rapids & Indiana R. R.

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MICHIGAN CENTRAL RAILROAD

	Leave.	Arrive.
Local west & Past train e.	‡4:00 A. M.	‡11.50 P M
Day Express	*8:35 A. M.	*6:30 P. M
Mail (via Main & Air Line)	*7:00 A. M.	*6:50 P. M
Jackson Express	*5:55 P. M.	*10:00 A. M
Gd. Rapids & Kal. Ex	*4:05 P. M.	*11:50 A. M
(a) Evening Ex	a*8:30 P. M.	b†8:00 A. M
Pacific Ex	‡9:50 P. M.	‡3:35 A. M

Grand Rapids and Muskegon.

Day Ex	*9:35 A. M.	*6:30 P M
Pacific Ex	‡9:50 P. M.	‡3:35 A. M
Express	*4:05 P. M.	*11:50 A. M

*Sundays excepted. †Sundays and b Monday excepted. ‡Daily. (a) Saturdays excepted.

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DETROIT & BAY CITY R. R.

Short Line to the Saginaw Valley

Time Table taking effect Oct. 4th, 1879.

Trains leave Third Street Depot by Detroit time as follows, and pass the Woodward Avenue depot 20 minutes later:

	Leave.	Arrive.
B. C. and Saginaw Ex	†9:45 a m	†11:45 a m
B. C. and Saginaw Ex	†5:20 p m	†10:15 p m
Mackinaw Express	*11:00 p m	*7:30 a m

†Runs daily except Sundays. *Runs daily except Saturdays.

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CANADA SOUTHERN RAILWAY.

Depot foot of Third street, Detroit time.

BUFFALO TRAINS.

	Depart.	Arrive.
Atlantic Express	* 4:00 a. m.	*9:20 p. m.
Fast Day Express	*12:00 noon	*4:35 p. m.
Lightning Express	.*11:35 p. m.	*8:25 a. m.

TOLEDO TRAINS.

Cin't, Cleve. and Col's	† 7:40 a. m.	*1:10 a. m.
do do do	* 3:00 p. m.	*1:30 p. m.
Toledo & Cincinnati Exp	*8:00 p. m.	†8:15 p. m.
Grosse Isle Accommodat'n.	†5:00 p. m.	†9:00 a. m

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DETROIT, Dec. 16, 1881.

LAKE SHORE & MICHIGAN SOUTHERN RAILROAD.

Depot Foot of Brush Street.

Trains run by Detroit time. On and after Sunday Dec. 19, trains will arrive and depart as follows:

	Leave	Arrive.
Buffalo & Cincinnati Ex.	7:40 A.M.	1:30 P. M.
Chicago Express	9:35 A. M.	7:10 A. M.
Adrian, Cleveland and Buffalo Express	3:00 P. M.	8:.5 "
Fayette, Chicago and Cincinnati Express	6:40 "	10:50 A. M.

The 10:50 A. M. and the 7:10 P. M. trains arrive and 6:40 P. M. and the 9:35 trains depart from Brush Street depot; the other trains will arrive and depart from the Third Street Depot.

DETROIT, GRAND HAVEN AND MILWAUKEE RAILWAY.

Nov. 29th, 1880.

Trains leave and arrive at Brush street depot Detroit time, as foll

MICHIGANFARMER

—AND—

State Journal of Agriculture.

The Only Agricultural Journal Published in Michigan.

A Weekly Newspaper devoted to the industrial and producing interests of Michigan.

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The Michigan Farmer

—AND—

State Journal of Agriculture.

DETROIT, TUESDAY, JAN. 25, 1881.

WHEAT.

The receipts of wheat in this market the past week have been 111,173 bu. while the shipments were only 19,727 bu. The amount held in store at the close of the week was 1,126,147 bu., against 1,611,684 at the same time last year. The visible supply of this grain on January 15 was 28, 603,068 bu., against 31,023,306 bu, at the corresponding date in 1880. The stocks of grain throughout Europe are small, much smaller than usual at the close of the year. In the United Kingdom, in 16 ports, there were Dec. 31, 1880, 842,967 qrs of wheat and 474,780 qrs of corn, against stock Dec. 31, 1879, of 1,733,643 qrs of wheat and 553,179 qrs of corn. The stocks in Germany and France are also light. The imports into the United Kingdom from September 1 to December 31 of wheat and flour, as per English Board of Trade report, has been equal to 5,883,917 qrs of wheat. The home deliveries of wheat during the same period have been equal to 3,018,884 qrs, giving a supply in four months of 8,902,801 qrs of wheat, or a weekly average supply from home-grown and foreign wheat of 510,000 qrs, against 450,000 to 460,000 qrs weekly consumption, showing that there has been during the four months a very considerable increase in the reserve stocks; but this result is not shown by the stocks December 31, 1880, in the 16 importing ports, where the stock of wheat was 843,000 qrs, vs. 1,753,000 qrs December 31, 1879. The question naturally arises, where, if the above figures are correct, have these supplies gone to? While the reserves ought to show an increase, they are really less, this time than for many years, To show the great difference in stock of bread stuff held there as compared with the same time last year, we give the following statement of the stocks in store in Liverpool at the various dates named:

	Dec. 31, 1880.	Sept. 1, 1880.	Dec. 31, 1879.
Wheat, centals.....	553,772	1,409,650	2,491,337
Barley, centals.....	32,777	15,300	65,380
Oats, centals.....	71,071	47,844	57,064
Beans, centals....	22,069	56,548	67,457
Peas, centals.....	71,077	39,762	87,505
Corn, centals.....	630,044	243,339	241,896
Oatmeal, loads.....	12,437	29,493	19,601
Flour, bbls	79,252	58,587	119,999
Flour, sacks.....	10,951	9,916	20,287

The Chicago market at the close of the week was dull, with but little doing, but prices kept very steady notwithstanding. There is little wheat moving in that market, and the daily press claim that it is being shipped around on account of railroads cutting rates to secure its transportation. The elevators there contain much smaller stocks than last season.

Our local market has been quiet the whole week, with prices generally steady. At the beginning of the week No 1 white opened at $1 01½ and No. 2 do at 97½, and after reaching $1 02½ for No 1 and 99⅜c for No 2 on Friday it closed Saturday with No 1 quoted at $1 01½ and No 2 at 97 1–2c, Yesterday the market opened dull, and 1–2c below the closing rates of Saturday. The Chicago market closed 1c below the rates of Saturday and this with cable dispatches reporting a dull market, caused very weak feeling here. No. 1 white at the close was quoted at $1 01⅛, No. 2 at 97c, and No. 2 red at $1 03⅛.

The following table exhibits the daily prices of wheat from the 1st to the 24th of January.

	White extra	No. 1 white	No. 2 white	No. 2 red.
Jan. 1.....	.....	.....	.....	.....
" 3.....	0 00	1 00	0 96½	0 97
" 4.....	0 00	1 00⅜	0 96½	.....
" 5.....	0 00	1 00	0 96½	1 03
" 6.....	0 00	1 00⅜	0 96¾	0 00
" 7.....	0 00	1 01	0 96¾	0 00
" 8.....	0 00	1 01⅛	0 97¼	0 00
" 10.....	0 00	1 02⅛	0 98⅛	0 00
" 11.....	0 00	1 02⅛	0 98½	1 04
" 12.....	0 00	1 02	0 98¼	1 04
" 13.....	0 00	1 02¼	0 98⅜	0 00
" 14.....	0 00	1 01⅞	0 98¼	1 02
" 15.....	0 00	1 01⅞	0 98	1 04
" 17.....	0 00	1 01⅞	0 97¼	0 00
" 18.....	0 00	1 01⅛	0 96½	1 03¼
" 19.....	0 00	1 01	0 97	1 04
" 20.....	0 00	1 01⅝	0 97¼	1 04
" 21.....	0 00	1 02⅛	0 97⅜	0 00
" 22.....	0 00	1 01⅞	0 97½	1 04
" 24.....	0 00	1 01⅜	0 97	1 03¼

The closing prices for futures yesterday, as compared with those of the Monday previous were as follows:

	Jan. 24.	Jan. 17.
February.....	1 02	1 02⅝
March.....	1 04	1 04½
April.....	1 05¾	1 06½
May.....	1 06⅞	1 07⅓

CORN, OATS AND BEANS.

The receipts of corn here the past week amount to 12,598 bu and the shipments to 13,920 bu. The amount held in store amounts to 10,759 bu against 11,111 bu at corresponding date of 1880. The visible supply in the country on January 15, amounted to 16,858,220 bu against 11,926,167 bu at same date last year. In this market rates are firm at 43 1–2c for No. 1 mixed while some sale of same grade for February delivery have been made at 42 1-2c. In Chicago at the close of the week No. 2 spot corn was fairly active at 36¾c, high mixed at 37c, and new high mixed at 34½c. In futures May was the only deal attracting much attention, and for that month sales were made at 41⅞ to 42c per bu. The early setting in of winter compelling farmers to feed grain much earlier than usual, with the unexampled severity of the weather and the probability of a late Spring, will have an important influence upon the future of the coarser grains, and may, as the season advances and these facts become better understood, strengthen holders of corn. The crop the past season was a very fair one, but the season and the active demand for export that existed during the early winter months, will, we think, not leave very much of a surplus by the time the new crop becomes available.

Oats were received here the past week to the amount of 5,341 bu and the shipments were nothing. The amount in store here on Saturday was 5,559 bu against 4,658 bu at the corresponding date in 1880. The visible supply of this grain in the country on January 15, was 3,558,540 bu against 3,317,942 bu at corresponding date last year. Our local market for the past few days has been very strong, and prices were advanced. On Saturday No. 2 white sold at 39 to 40c, No. 1 mixed at 39c, and No. 2 do at 38 1-2c. While our market was active and excited, New York was quoted dull and a shade lower, while Chicago was strong at slightly higher prices. There was a light trade, however, with futures quiet and little inclination to speculate among dealers.

Beans were received here the past week to the amount of 1,557 bu and the shipments were 3,487 bu. The market has been dull for the past ten days, and holders are inclined to favor buyers where a chance occurs. Prices have declined, until $1 is an outside figure for unpicked, while most lots are disposed of at 80 to 90c. For picked $1 60 to 1 65 are the best rates offered. The demand has slackened considerably and orders from outside markets are few and small. Any accumulation of stock would probably result in a lower range of value, as the market is devoid of any strength.

HOPS AND BARLEY.

There is the same quiet and steady feeling in the hop market as for some time past, and the movement of stock is entirely to meet the demands of the trade. Prices are still steady at 15 to 20c per lb with demand equal to the offerings. In New York, although business was somewhat obstructed at the close of the week by the stormy weather, the market remained very firm. The quotations there are as follows:

N. Y. State, crop of 1880, fancy	24	@25
do do do choice	22	@23½
do do do good to prime..	18	@20
do do do fair to good	16	@18
do do do low grade.....	14	@15
do do 1879, good to prime.	16	@18
do do do low to fair.....	12	@15
do olds	4	@12
Eastern, crop of 1880, low to choice	15	@20
Wisconsin, crop of 1880, low to choice..	18	@23
California, crop of 1880, good to choice.	18	@22

Barley was received here the past week to the amount of 4,402 bu, while the shipments were 3,700 bu. The stocks of this grain held in store here January 22, was 12,702 bu, against 3,872 bu, at the corresponding date in 1880. The visible supply in United States and Canada January 15, was 3,259,713 bu against 4,403,114 bu at the corresponding date in 1880, and 5,064,270 bu at same date in 1879. While the supply of this grain is smaller than usual at this season, the demand is increasing with each year, from the extraordinary growth of the brewing interest. Barley is therefore in a very strong position at present, in all the markets of the country. Under light receipts the past week our local market is very firm, and ordinary to good samples of State readily command $1 40 to 1 75 per cental, while Canadian is quoted at $2 to 2 50 per cental, the latter an outside quotation for a choice article. In Chicago at the close of the week barley was reported quiet at $1 04 for No. 2 cash, and $1 06 for No. 2 February delivery. No. 3 spot was quoted at 79c, and No. 4 do at 65c.

DAIRY PRODUCTS.

The receipts of butter here the past week amounted to 40,336 lbs., and the shipments were 31,000 lbs. So far as our local market is concerned there has nothing of interest occurred since our last report. The movement has been somewhat greater, but no change has been made in prices. The quotations for the best lots of butter are 19 to 20c per lb., with the lower grades dull and neglected. In New York there has been an advance in most grades of Western, and holders are quite firm in their views. New York State choice to fancy creamery is now quoted at 31 to 34c, and good to prime at 28 to 30c. The better grades of Western closed very firm at the end of the week, in consequence of light arrivals. The export demand continues fairly active. Quotations are as follows:

Western imitation creamery.....	23 @27
Western dairy, choice.....	23 @24
Western dairy, fair to good.....	20 @22
Western dairy, ordinary to fair.....	17 @20
Western factory, special marks.....	23 @24
Western factory, prime to choice.....	21 @22
Western factory, fair to good.....	16 @20
Western, poor.....	13 @15
Rolls, choice.....	19 @20
Rolls, fair to good.....	17 @18

Cheese was received here the past week to the amount of only 1,600 lbs, and there were no shipments reported. A very quiet feeling prevails in this market, with no disposition on the part of the trade to force business. The demand is light, but the supply is not large enough to depress the market, and prices rule steady at 13 to 13½ for good to choice selections. In New York the situation is described as follows by the N. Y. *Commercial Bulletin:*

Strictly fine, choice and fancy parcels are under control of strong and apparently confident holders who offer sparingly and only upon a limit of full valuations, but are not selling much, as buyers refuse to meet them. All other grades, however, are in demand and when available find custom at prices which are generally quite full and would be paid for duplicate parcels if here. The exports for the week will reach some 45,000 boxes, and the close is strong and cheerful. The home demand fair, and the market is in good shape for all kinds of stock suited to the outlet."

In that market, State factory of strictly fall make is quoted at 13¾c, fancy State factory 13½ to 13 1-2c, and prime factory at 11 1-2 to 12½c. Choice Western is quoted there at 12 1–2 to 13c, and prime at 11 1-2 to 12½c. On Saturday the Liverpool market was reported firm at 68s per cwt for choice American.

Fenton Gazette: The Fenton Agricultural Society at its last meeting elected Z. Patterson, W. Blackman and John O'Hara as president, secretary and treasurer for 1881.

THE PORK TRADE

The pork trade has been an active one the past week, and the markets at the leading packing points have been firm at a higher range of values. In our local market the continued advance in both live and dressed hogs made all kinds of products very firm, and an advance in prices extremely probable. Dressed hogs are quoted here at $6 per cwt, for light, and dealers are offering more for good heavy. Live hogs are also higher and very firm. In Chicago live hogs have advanced to $4 80 to 5 05 for mixed packing, light to same figures and choice heavy to $5 20 and 5 50 and this despite the heavy receipts. Pork there is firm at $13 25 to 13 37½ for spot, while for March delivery terms are $13 45. Lard is also active and firm there at higher prices. The Liverpool market is reported firm and higher, with an active demand for all kinds of pork products.

Joseph Nimmo, Jr., chief of the Bureau of Statistics, furnishes the following statement of exports of provisions for the year 1880, as compared with 1879:

	1880.	1879
Bacon and hams, lbs	875,746,958	747,338,377
Pork, lbs.....	97,124,756	90,142,875
Lard, lbs.....	413,753,426	344,411,066
Total hog product, lbs...	1,385,625,140	1,181,892,318
Fresh beef, lbs.....	100,429,563	66,220,370
Salted beef, lbs.....	45,365,707	40,340,331
Tallow, lbs.....	116,842,581	101,575,926

It is reported from Chicago that the active demand that has existed for some weeks past for the foreign cuts, has absorbed about all of that class of meats, for delivery as fast as in shipping condition, and the market is actually oversold, so that the manufacture of mess pork has almost ceased, not only because it is unprofitable to make, but the hogs can not be spared, and must be cut into the articles for which the demand is so great.

The Cincinnati *Price Current*, in its last issue, says:

"The prominent feature in the hog packing business the past week has been the large receipts of hogs at Chicago, amounting to 235,000 against 182,866 for corresponding time last year. In our report upon supply of hogs two weeks ago, based upon the full special correspondence of the *Price Current* from all sections of the West, we said that the indications were that Iowa had fully as many and probably more hogs, as compared with a year ago, for marketing during the remaining portion of the Winter—and we infer that these liberal receipts at Chicago are drawn largely from the resources of that State. As the account now stands at Chicago, that point has packed 510,000 more than to same date last year, and is now within 230,000 of the total on March 1 last year. While Chicago has made quite an increase the past week, other places have fallen off correspondingly, so that the aggregate packing for the week has not exceeded corresponding period last year. Here at Cincinnati, as also at St. Louis, there has been a marked decrease. We estimate the entire packing to date at 5,475,000 against 5,125,000 a year ago, showing an increase of 350,000."

That paper furnishes the following statement of the number of hogs packed from November 1st to date at the six leading cities, and to latest mail advices from other points, as compared with the corresponding dates last year:

To January 19—	1880–81.	1879–80.
Chicago.....	2,195,000	1,685,000
Cincinnati.....	495,000	490,000
St. Louis.....	435,000	495,000
Indianapolis.....	337,500	200,000
Milwaukee.....	263,000	265,000
Louisville.....	215,670	231,259
Kansas City.....	244,375	147,060
Ateaison.....	.....	89,846
Cedar Rapids.....	96,314	100,931
St. Joseph, Mo	87,000	78,000
Sabula, Iowa	47,550	13,742
Des Moines, Iowa.....	59,200	71,354

WOOL.

The wool markets at the East are quiet and steady, with some holders inclined to make concessions to influence business; but most holders express themselves satisfied with the outlook, and prefer keeping their stocks to making any sacrifices. Some express the opinion that any decline in prices at present would start a speculative demand that would end in higher values ruling. There is little of interest to note at present, the trade in woolens being quiet, and this being reflected in the light trade in the raw material. In Boston the past week the following sales of Michigan have been made: 5,000 lbs X at 43c; 2,000 lbs No. 1 at 49 1–2c; 3,000 lbs No. 3 at 36 to 38c; 10,000 lbs No. 1 at 48c, and 2,500 lbs do at 48c. We also note sales of 15,000 lbs unwashed Michigan at 30 to 32c.

In New York there has been a dull feeling in the trade, with staple wools steady, but heavy and faulty wools weak and lower. The *U. S. Economist* says that when woolen producers learn to send men of intelligence into the markets who can discern super pulled wool from California, and know what the cost of the scoured pound is without asking others, they may be able to give the people cheaper and better goods, and still make a profit for themselves. Nothing could be truer than this. How many of our wool-buyers know the value of what they are buying? They cannot discern the difference between a good fleece of unwashed wool and one that has been washed and afterwards allowed to fill up with dirt before shearing, and the mere fact that the one is called washed and the other washed, guides them in fixing a price upon it. This is why the barbarous and unnecessary practice of sheep-washing is persisted in. There is no chance of a wool-grower getting the value of his wool if he cannot assert it has been "washed."

We have received the monthly circular of Justice Bateman & Co., of Philadelphia, but it contains nothing new beyond a prediction that lower prices are likely to rule before long.

DETROIT LIVE STOCK MARKET.

During the past week, the cattle trade both east and west has shown lower rates prevailing than were quoted the week previous; but in our market prices have ruled steady and firm. On Saturday the market was active both for shipment and to supply the local trade, at rates fully as high as the previous week. The average quality of the offerings were the best we have had in several months, there being more good shipping grades in the number on sale and but few of the really poor ones. Among the choicest on sale were a pair of oxen, fed by John Renwick, of Salem, Washtenaw County, that weighed 4,030 pounds, brought in by N. E. Sutton. John Devine had in two two-year-old steers fed by W. R. Waldron, of Webster, Washtenaw Co., which weighed 2,840 ponnds; a two-year-old heifer, fed by Wm. Weston, of the same place, weighing 1,230 pounds, and a two-year-old steer fed by Ed. Cranston, also of Webster, which was in fine condition. George Giddings had in ten choice yearlings fed by John Carter, of Brighton, Livingston County, which gave proof of good handling. One of the handsomest animals in the yards, was a two-year-old steer, fed by H. Hurd, of Plymouth, which weighed 1,600 pounds, and was in prime condition. This steer and a very fine heifer fed by Stark Durfee, of the same place, were brought in by the Sly Bros. There were many other cattle equally worthy of note, but we could not learn by whom they had been fed.

The sheep trade at the present time is in a rather bad shape. The market at Buffalo for the past two weeks has been badly demoralized and prices have ruled low. This has been caused by a scarcity of cars, and a heavy snow storm which has blockaded the roads east. This, with large receipts pouring in, has given them more sheep than they could handle, and as a result there has been a heavy break in prices. We warned our readers against being in too big a hurry to market their sheep, as it would certainly cause a break, and even without the causes mentioned above, we question whether or not the market could have stood the large numbers which have been going forward. The parties who have had sheep in Buffalo during the last three weeks, know more than they did, but they have not got as much money. On Saturday the shippers in our market drew out, and the drovers who had sheep on sale were forced to ship on their own account. It is quite a long time until the first of May, and those feeding sheep need not feel a bit concerned about this decline. Our sheep will all be called for at good prices.

ADULTERATIONS.

We see by the published proceedings of the Legislature that Representatives Cottrell and Carns have both introduced bills for the protection of the dairy interests of our State, and calling for the enactment of a law regulating the sale of oleomargarine. We have no doubt of the passage of the bill, and hope the law will be made stringent enough and stated so plainly that there will be no mistaking the intention of it.

We think that both of these gentlemen could have done the State a service by incorporating in their bills the passage of a general law in reference to adulterations, not only of butter and cheese, but of all articles which go to make up the daily food of our citizens.

The article of glucose is particularly deserving of the attention of our legislators. Thousands of tons of this article are now being manufactured yearly in different parts of the country, and it has come so generally into use for adulterating sugars, and articles which in former days were largely composed of the product of the sugar cane, that sugar refineries which were producing pure sugars, are either forced to quit the business or use the glucose to adulterate their products and enable them to compete in the markets. The result has been to drive pure sugars almost entirely out of our markets, and substitute in their stead an article composed of one part of sugar and one part glucose. The effect of glucose on the health of our people we are not going to argue at present, but the fact that a short time ago a number of bee-keepers were seduced into the use of glucose syrup to feed their bees, from its apparent cheapness, and that in every instance the bees died, may well raise the question of its healthfulness as a food which enters largely into daily consumption in every family. What we desire to call the attention of our legislators to is the immense fraud practised on our people in using this adulterant. Glucose can be produced and sold at a large profit for 4 cents per pound, while a good quality of sugar sells from 10 to 11 cents per pound. Now, by taking 50 per cent. of glucose and 50 per cent. of cane sugar, the refineries are enabled to turn out a *pure cane sugar* which costs them not more than 6 cents per pound, and is now quoted in the market at 10 to 10½ cents. We do not object to the sale of glucose as glucose, but insist that it shall not be made to take the place of a superior and more costly article of food without the innocent buyers being made aware of the fact, and allowed to decide whether they will pay 10 or 11 cents per pound for an article under the name of sugar, which can be bought as glucose for 4 cents.

Glucose factories are springing up all over the country, and a large one has just been put in operation in our city. The profits from the manufacture of this article are very large, as was shown in the recent lawsuit in Buffalo, N. Y. From the evidence given in that suit we find that the Buffalo glucose factory, with a capital of $400,000, made a profit of over $1,000,000 in a single year.

Farmers' Institute.

An Institute to include the counties of Oakland, Lapeer, and Macomb, under the auspices of the State Board of Agriculture, will be held at Oxford, on Tuesday and Wednesday, February 1st and 2d. Everyone interested in agriculture is invited to participate. The programme of exercises will be as follows:

TUESDAY FEBRUARY 1ST.

Afternoon Session 1 *P. M.*—Prayer, Rev. W. Degeer.
Music under charge of A. Sutherland.
Address of Welcome, L. A. Thomas, President, Oxford village.
Our Common Roads, L. L. Treat, Oxford.
Lecture.—"Some New Insect Pests," A. J. Cook, Professor of Etomology, Michigan Agricultural College.
Maintaining Fertility without keeping Stock on the Farm, Hiram Andrews, Orion.
Discussion on same opened by Andrew Johnson, Oxford.
Question Box.
Music.
Prayer, Rev. Mr. Casler.
Evening Session, 7 *P. M.*—What constitutes a Successful Farmer, J. G. Noble, Oxford.
Lecture.—Thoughts on Gardening, James Cassidy, Sup't Conservatory Agricultural College.
Does Farming Pay? Henry Vinton, Oxford.
Discussion opened by W. H. Betteys, Oxford.
Wednesday 1 *P. M.*—Prayer, Rev. Mr. Glidden.
Music.
Wheat Culture. Romain Clark, Orion.
Relations of Chemistry to Agriculture, R. C. Kedzie, Professor of Chemistry, Agricultural College.
Salt in Agriculture, Hoyt Holister, Oxford.
Winter Butter, Mrs. C. H. Stevens, Oxford.
Discussion opened by Mrs. Jno. Moyers.
7 *P. M.*—Prayer, Rev. Mr. Mills.
Music.
Household Conveniences, Mrs. Ann Delano, Thomas.
Wind Mills, Ancient and Modern—Lecture, R. C. Carpenter, Professor of Engineering, Agricultural College.
Essay on Jersey Cattle, M. L. Frink, Oxford.
Discussion opened by John Lessiter, Orion.
Closing remarks and resolutions.

Michigan Horticultural Society.

The winter meeting of the State Horticultural Society will be for business only, and will convene at Lansing, Monday evening, January 31, a 7 o'clock. For the past year the meetings of the society have been so crowded with papers and discussions that the details of business connected with the work of organization have been neglected, and it is thought be t that the executive board and interested members meet and adjust all these matters, so that the annual June convention may not be burdened with them.

The sessions will be held in the pioneers' room at the state capitol and will continue until the work is completed. Branch societies are cordially invited to send delegates.

T. T. LYON, President.
CHAS. W. GARFIELD, Sec'y.

Pedigree of the Shorthorn Bull "Gernot."

Gernot was bred by Wm. Warfield, Grasmere, near Lexington, Ky. Purchased by Thos. M. Wyckoff from Mr. Warfield and now owned by Thos. M. Wyckoff, of Pontiac, and H. A. Wyckoff, of White Lake, Oakland County, Mich.:

Calved June 11th, 1879; got by 7439 Daisy Duke; Grand Sire, 3472 2d Duke of Grasmere 13961, by 4298 imported Royal Breton (27351), by 1750 4th Duke of Geneva (30938), by 824 6th Duke of Thorndale (33794), by 1799 4th Duke of Thorndale (17750) by 242 Grand Duke (10284), by 1227 Usurer (9763), by 765 Count Conrad (3570), by 592 Wallace (5586), by 577 Wellington (2824), by 352 Marmion (406), by 371 Merlin (430), by 323 Layton (366), by 482 Phenomenon (491), by 204 Favorite (252), by 280 Hubback (319), by 523 Snowdon's bull (413), by 361 Waistell's bull (509), by 361 Masterman's bull (422), by 440 the Studley bull (626).

Dam—Gertrude Gwynne.
1 g dam—Muirkirk Gwynne 3d, C. E. Coffin 1874, A 16, 19254; R 6, 518.
2 g dam—Malibran, J. O. Sheldon 1869, A 11, 870.
3 g dam—Masterpiece, S. Thorne 1866, A 11, 885.
4 g dam—Moselle, S. Thorne, 1861, A 6, 372.
5 g dam—Mistress Gwynne, S. Thorne 1855, A 4, 481.
6 g dam—Imported Mystery Earl, Earl Ducie, 1850, A. 2, 490, (imported by Thorne in 1853.)
7 g dam—Minstrel. Mr. Parkinson 1846, E 10, 487.
8 g dam—Magic, Mr. Troutbeck, 1835, E 8, 418.
9 g dam——, Mr. Troutbeck.
10 g dam—Dorothy Gwynne, Troutbeck.
11 g dam—Daphne Gwynne, Troutbeck.
12 g dam—Nell Gwynne 2d, Mr. Wood, 1815.
13 g dam—Nell Gwynne, H. Van Tempest, 1809, E 1, 423.
14 g dam—Princess, R. Colling, 1800, E 1, 445.
15 g dam—Bright Eyes, R. Colling.
16 g dam—Bright Eyes, Alex. Hall.
17 g dam—Bright Eyes, Alex. Hall.
18 g dam—Beauty, J. Hall.
19 g dam—Duchess of Athol, John Hall.
20 g dam—Tripes, C. Pickering 1748
21 g dam——, bred by Mr. Stephenson of Ketton in 1739.

This is the oldest tribe of Shorthorns in existence, and from the beginning has been a most excellent one. Both the Princess and Gwynnes have been famous milkers from their first origin. Daisy Duke is a Young Mary; the 2d Duke of Grasmere, a pure Rose of Sharon, got by 1035 Muscatoon 7057, (winner of 37 prizes and sire of numerous prize animals); dam Grace by 643 Airdrie 3478; he a Rose of Sharon by 171 Imported Duke of Airdrie 12730. It will be seen that this runs back to the famous Duchess and dam of Airdrie. The 4th Duke of Geneva was by 676 Baron Oxford; dam 7th Duchess of Thorndale. Imported Royal Briton is by 2177 Lord Blithe, dam by 5154 Prince Albert.

A half interest in this bull is offered for sale. For particulars address Mr. Thos. A. Wyckoff, Pontiac, Mich.

The Vermont Merino Sheep Breeders.

We have received a report of the annual meeting of the Vermont Merino Sheep-Breeders Association, which was held at Middlebury recently, and for which we are indebted to the Rutland *Herald*. The Secretary, Mr. A. Chapman, read his annual report, which was adopted and then Mr. U. D. Twitchell presented the auditors' report, which showed that the receipts for the past year were $4,514 99, and the expenses $2,248 61, leaving a balance of cash on hand of $2,265 38. Mr. E. N. Bissell of East Shoreham, was unanimously elected President, W. and W. R. Remele of Middlebury, ann C. B. Cook of Charlotta, Vice president. The salary of the Secretary was placed at $1,500 per year, and Mr. A. Chapman unanimously re-elected. M. B. Williamson of Middlebury was elected Treasurer. The Treasurer-elect seemed to think that his salary was too high for the Association, but various members threatened him that if he did not keep quiet they would raise it and he had to sit down for fear the threat would be carried out. The board of directors elected consist of Judge T. Brookins, H. C. Burwell, V. Rich and F. H. Farrington. The Committee on pedigrees elected consists of J. J. Crane, Franklin Hooker, and H. S. Brookins. Mr. V. Rich resigned as a director, and Mr. J. H. Sprague of Waltham was elected to succeed him. In view of the large surplus in the treasury it was voted to suspend the payment of annual dues for the present year. President Bissell was instructed to appoint a committee to confer with other committees in regard to a national sheep show whenever he deems it advisable.

In its review of the lumber production of the nothwest, *The Northwestern Lumberman* remarks that the Lake Michigan section produces more lumber than either the Mississippi Valley or the eastern Michigan districts. It annually turns out nearly one-third of all the lumber manufactured in the northwest, leaving the remainder, a little more than two-thirds of the whole, to be divided between the other two districts and the various railroads that stretch out into the pineries. Calculations based upon the cut of 1879 show that of a total of little over 4,800,000,000 feet, the Lake Michigan mills sawed between 32 and 33 per cent, those of the Mississippi River and its tributaries, between 24 and 25 per cent, and those on the Saginaw River and other points along the Lake Huron shore, between 21 and 22 per cent, which figures no doubt fairly show the relative importance of the three sections in respect to the quantity of fine lumber they produce. The sum total of the amount manufactured by the Lake Michigan mill men in 1880 reached the enormous amount of 1,808,351,000 feet, an increase of 276,811,000 feet over the production of 1879, which was previously the largest cut of lumber ever turned out in the district covered by these figures.

An adjourned meeting of the convention of wool growers and manufacturers of the United States was held at Washington last week. The wool-growers present represented flocks aggregrating 32,768 sheep valued at $181,610. A number of interesting papers were read upon sheep culture. Kellar, of Leman Dessong, Australia, an extensive sheep grower, stated that one of the most odious at its inception and afterward one of the most popular measures ever enforced by the government was the establishment of a commission to secure the eradication of contagious diseases among domesticated animals. Mr. Kellar has visited the United States for the purpose of locating an extensive ranch here, and importing his sheep and shepherds from Australia, believing that wool can be grown as cheaply here, with the added advantage of much better market. John L. Hayes, president of the National Association of Wool Manufacturers, read a paper upon the products required by looms and the best mode of producing them in the United States. He attributed the falling off in production of fine wools to the fact that manufacturers will not pay high prices for fine wools, because the present fashions have created a demand for coarse wool cloths. The following resolutions were adopted:

"That it is advisable that the Department of Agriculture institute a register of the different breeds of sheep and cattle in the United States.

"That this convention earnestly urge upon Congress the importance of establishing in the District of Columbia an experimental farm to be maintained at the expense of the government for the purpose of acquiring and maintaining the best species of domesticated animals, and especially of sheep and cattle, for distribution among the states."

We have received from Secretary G. W. Keyes, a copy of the Annual Catalogue of Olivet College, Olivet, Eaton Co. Mich.; also the Twenty-Fifth Annual Catalogue of Hillsdale College, Hillsdale, Mich. Both contain full and complete information respecting the rules, regulations and courses of study pursued at these institutions, and neatly gotten up, and creditable pamphlets.

We are pleased to learn that Mr. Birkett, of Base Lake, has secured the services of Mr. Francis Graham, in the care and management of his valuable Shorthorn herd. Mr. Graham was for five years in charge of the famous New York Mills herd previous to its breaking up, and is one of the best informed men in regard to all that relates to thoroughbred stock in the country.

It is with great pleasure we announce that Hon. T. T. Lyon, President of the State Horticultural Society, will hereafter be a regular contributor to the colums of the FARMER. Any of our readers who may wish to address him at any time can do so at South Haven, Mich.

Mr. D. P. Dewey this week gives our readers an interesting account of his recent trip among the sheep-breeders of Western New York. It shows that the fine wool sheep interest is in a very healthy and prosperous state, and that breeders are progressing in the right direction.

NEWS SUMMARY.

Michigan.

Hay at Manistee, according to the Times is $20 per ton.

Allegan has had seven weeks of uninterrupted sleighing.

A Newaygo County man has 400 tons of timothy hay to sell.

A Sanitary Convention is to be held in Flint this week, according to the Globe.

Tecumseh Herald: Tecumseh has four new brick blocks, built within the past year.

H. N. Burnham, an old pioneer of St. Clair County, died at his home in Ridgeway, aged 73 years.

A fire at Mayville, on the 18th, destroyed two stores belonging to E. G. Fox and H. R. Crittenden.

The Ionia Standard wants the capitalists of that city to establish some manufacturing enterprise there.

Allegan Journal: W. O. Hudson has imported $50 worth of pear seed from France for planting next spring.

At Bellevue the harness shop of W. S. Hooker and two other stores were burned on Tuesday. Loss, $5,500.

State journals are full of accounts of runaway escapees, all grounded—and usually ended—in the "beautiful snow."

A second track on the M. C. R. R., between Chelsea and Grass Lake will be in process of construction in a very short time.

Ann Arbor Courier: A lot has been purchased upon which a fire-proof building will be erected for an Abstract office.

Lowell Journal: Oakfield has $96 worth of dogs on the tax roll; one man paying more tax on his dogs than on his farm.

The broom-handle factory at Corunna turned out 200,000 handles last year, most of which were shipped to Philadelphia.

A Stanton man charged his little son with the theft of $5 in order to get him sent to the Reform School and thus be rid of him.

Coldwater Republican: Hasbrouck & Hill, of Colon, made an assignment on the 14th. Liabilities $41,000; assets less than $10,000.

On Tuesday the stores of E. G. Fox, and H. K. Crittenden, of Maryville, this State, were burned. Loss, $11,500; with an insurance of $6,400.

Lansing Republican: A little daughter of H. H. Curtis fell into a pan of boiling water, and was so terribly scalded that she died in a few hours.

The Charlotte Republican says that the Farmers' Institute held in that city last week was largely attended, and that interest in its work is growing.

Pontiac Gazette: John Teggerdine, of White Lake, sold to George Dewey, on Wednesday, two twenty months old corkers, net weight 938 pounds.

Mackinac Sentinel: As soon as navigation opens two locomotives will be shipped to Cheboygan; and tracklaying will be rapidly pushed on both ends of the new railroad.

The project of a narrow gauge railroad from Bay City to Alpena is under consideration, meetings have been held, and a committee appointed to solicit subscriptions.

Adrian Times: Bishop Ames, a farmer of Hudson Township, sold 1,700 barrels of frozen apples. The fruit brought 25 cents per barrel, and will be fed to cider mills.

There is a lively but hardly brotherly strife going on over the Kalamazoo postmastership. Messrs. Gates and Giddings are rivals for the position, and both are in Washington to further their claims.

Saginaw Courier: Frank Bennenburg committed suicide at Saginaw on the 18th, by throwing himself into the river. A letter found on his person stated that he had taken poison also.

The Kalamazoo correspondent of the Vermontville Hawk says that a dog belonging to W. H. King, of that place, woke him in time to discover his house was on fire, before much damage had been done.

Lansing Republican: The family of James Corbin, of Fitchburg, is severely afflicted with diphtheria. Of seven members who have had the disease, five have died, the other two are thought to be convalescent.

Stanton Clipper. Wilber Norton, of Greenville, foreman of Hanson's shingle mill, near Lake View, was caught in a revolving shaft, on the 17th, and he was so bruised and injurthat he died in about two hours.

W. T. Lawrence, whose trial in connection with the grand stand disaster at Adrian resulted in his acquittal last week, was congratulated at the Lawrence House by large numbers of the citizens of the place.

Vermontville had a $5,000 fire on the 16th, and congratulates itself that the wind was quiet and the snow on the roof of neighboring buildings heavy, or the fire might have swept the entire business portion of the town.

Manistee has a cooking club, to which belong the young ladies of the F. F.'s, of Manistee, according to the Times, and it is said that the members can cook buckwheat cakes without letting them stick to the griddle.

Morris S. Meyers, dealer in tobacco and cigars, whose place of business is on Michigan Avenue and Park Place, made an assignment on Tuesday to James B. McCracken for the benefit of his creditors. Liabilities not stated.

Dowagiac Republican: H. R. Taylor, of Wayne Township, sold three head of young cattle that were hard to beat. One was a two year-old and weighed 1,730 pounds, the other two were yearlings and weighed together 2,400 pounds.

Caro Citizen: A young son of Almond McMurch, of Watertown, met with a sad accident on Friday last, resulting in his death. The lad was hauling a load of wood with an ox-team, and falling off the load, was run over and instantly killed.

The apple buds and Concord grape buds are pronounced all right in Michigan, but the peach buds are reported killed everywhere outside of the peach belt. A Kalamazoo man has offered $25 a bushel for peaches grown in that county next season.

The Board of Directors of the Northeastern Agricultural Society will meet at East Saginaw, Feb. 8th, to arrange preliminaries for holding the first fair of the Society. Isaac Marston, Bay City, is President; Summer Howard, Flint, Secretary.

Henry G. Tracy, of Grand Ledge, was granted a decree of divorce in the Circuit Court Tuesday forenoon and immediately after dinner of the same day he was married to Rose Earl, of Portland, who waited at the hotel till the case was decided.

Battle Creek Journal: Mrs. Jeremiah Brown, one of the old residents of Calhoun County, died on the 15th inst., aged 71 years. Mrs. Brown was at one time a regular contributor to agricultural journals, and also a poetess of considerable merit.

On Saturday Aaron Elbinger, of Bay City, made an assignment to E. P. Grow. Liabilities $8,500; assets $5,500. The following are the Detroit creditors

One hundred Chicago commission merchants sign a cast iron pledge not to deal in bogus butter.

Four times a year the United States government pays W. H. Vanderbilt $476,000 in cash as interest on bonds.

Henry A. Hebard, chief clerk of the internal revenue office at San Francisco, has been arrested for embezzlement.

A report from Jefferson City, Mo., says that Jesse James, the notorious outlaw, has been in Kansas City the past week.

The bodies of nine victims of a recent snow slide at Alta, Cal., have been recovered and brought into Salt Lake City.

The Chicago *Inter Ocean* has leased a telegraphic line between Washington and Chicago, and has its own operators.

The creditors of the First National bank of Duluth, Minn., have been paid the full amount of their claims with interest.

Rufus Hatch is making a fight against the proposed telegraphic consolidation. He is a stockholder in one of the companies.

Near Nickelsville, Va., last week the people were greatly excited by a shower of rain which had all the appearance of blood.

A company has been formed in Chicago to erect a telegraph line from that city to New York, so as to be independent of the monopoly lines.

During last year 31 railroads were sold under foreclosure, and the number that became bankrupt during the past five years was 228.

It is now believed that some wretch poured oil over every animal in the great stock barn at Brickerville, Pa., last Friday, before setting fire to it.

At Girardville, Pa., last week, two young ladies were instantly killed while coasting on a sled. They ran into a telegraph pole at the side of the road,

Frank Hurd, of Toledo, has introduced a bill in Congress to levy tariff hereafter on free trade principles, but it is not expected to pass the House.

Henry W. Hillard, United States Minister to Brazil, was recently robbed in Rio de Janeiro of $5,000 in cash and all his clothing and valuables.

Controller Gurney's abstract of the expenditures and cash receipts of Chicago for the last fiscal year shows the former to have been $7,619,119 and the latter $7,726,594.

Alonzo Bond, an engineer of the Wabash railroad, jumped from his engine near Cecil, Ind., last week to avoid a collision. He fell under the cars and was cut to pieces.

Secretary Sherman has ordered the clerks to be paid off partly in gold, so as to relieve the treasury vaults. Now pay off the Congressmen in silver, and make things even.

Thos. C. Platt has been elected Senator from New York to succeed Senator Kernan. He is an anti-railroad Conkling man. The railroad candidate was Chauncey M. Depew.

The Wabash Company has funded its present and prospective debt, and mortagaged its property for $50,000,000 to meet it. The Central Trust Company of New York is the mortgagee.

The Chicago Board of Trade men have lost over $1,000 worth of overcoats by sneak thieves this winter. Detectives were put on the watch, and caught one of the thieves on Saturday.

Sir John A. McDonald, the Canadian premier, has determined to ratify the bargain with the Canadian Pacific syndicate, despite the very vigorous kicking of the people and the press.

Harry Genet, one of the Tweed ring, after being out on $25,000 bail since 1878, has been tried and convicted. He must now be imprisoned for not more than three years and pay a fine of $40,000.

J. & H. Henley, of Cincinnati, importers and jobbers of straw goods and jobbers in millinery, have made an assignment. Liabilities, $60,000. It is thought that the assets will be enough to cover them.

John S. Morton, ex-president of the West Philadelphia passenger railway, serving a sentence of 10 years for fraudulent over issue of $100,000 of stock, was last week pardoned after serving three years.

And now it appears that although the French cable company's charter does not permit it to consolidate with any other cable company, how to force it off American soil in case it does do so does not appear.

Father Edward Purcell died suddenly Friday last in Brown County, O. He was the business man of his brother the archbishop, and the trouble about the financial affairs of the diocese probably hastened his death.

Stanley Mathews, brother-in-law to the present administration, is to be elevated to the bench of the Supreme Court of the U. S., to the disgust of a large circle of people who favored Judge Cooley for the position.

Edward A. Sothern, the actor, and known all over as the original "Lord Dundreary" died in London, England, Friday, after a lingering illness. His disease is said to have been softening of the brain. His age was 51 years.

At a fire in the funiture factory of Meyer & Co., Chicago, on Friday last, twenty-two firemen were more or less seriously injured by falling walls and by jumping from the roofs of adjoining buildings in order to escape threatened danger.

Harivood, the Minneapolis dry goods dealer who went into bankruptcy recently, and then fled to parts unknown, has turned up in Florida. He says he has $100,000 to invest and his creditors know that he ought to have about that amount.

Sitting Bull, after many promises to surrender, suddenly packed up his goods and departed for Canada again. Part of his followers refused to go, and have surrendered to the U. S. authorities. The number surrendering was about 300.

The U. S. Senate are angry over the publication of the Chinese treaty before it had been acted upon, and an investigation has been ordered. Correspondents of newspapers are to be imprisoned if they do not tell all they know about the matter.

William H. Westervelt, who was sentenced, October 3, 1875, to seven years' imprisonment, on conviction of conspiracy to kidnap and imprison Charlie Ross and extort ransom money for the child's return, has been released, and now says he thinks he can find the missing child.

While two trains were stopping to have a bridge examined on the Illinois Central railroad on Saturday, a third train ran into one of them, killing a fireman and brakeman, and injuring the engineer and two other brakemen. The bridge had been reported unsafe, and the trains had been stopped there to have an examination made.

By the ditching of a passenger train on the Rock Island road near Pond Creek, Ill., on Friday, a Mrs. Kirby was burned so that she died the same day. The conductor was also severely burned while assisting passengers out of a car which had caught fire by the upsetting of a stove when the train was upset. It is a great wonder more were not hurt, as over 20 people were in the burning car struggling to get out.

State Engineer Seymour, of New York, in his annual report recommends the total abolition of tolls on the New York canals on all west-bound freights; the application of steam or water power to work the locks, as on the New Jersey canals; the raising of the banks of the Erie canal to give it one additional foot of water; the employment of dredging machinery to cleanse the canals instead of doing it by handwork, etc.

A terrible accident happened on the New York and Erie Railway on Saturday night last near Tioga Center, the entire train being thrown from the track. The postal car in which four clerks were employed took fire, and all of them were burned to death. The express car was also burned, and the messenger perished in the flames. The accident was caused by the breaking of the driving wheel axle.

Saturday morning New York city was completely cut off from telegraphic communication with the rest of the country by the effects of the recent storm. The wires were down in every direction, and business men were in a terrible state in consequence. It is the first time such a thing has occurred since telegraph lines have been in operations in the country. The damage is immense, and it will be fully two weeks before all the wires can be again got in working order.

The St. Louis Cotton Exchange will confer with the New York Exchange relative to the organization of an independent telegraph line. In a litle while every institution will have its own telegraph line, but Vanderbilt and Gould will, before that time, quietly shoulder their telegraphic stock on to some one else who will carry it. There is no doubt but that a wholesome feeling is growing up rapidly among people generally in regard to monopolies, which will bear fruit before long.

Foreign.

A new line of cattle steamers has been established between Great Britain and America

Seventeen vessels went ashore last week at Cardiff, and quite a number at Yarmouth, England. Fifty lives are reported to be lost.

Nearly 1,000 Dutch soldiers have deserted from the British troops and gone over to the Boers from sympathy with them.

Immediately after midnight on Friday, December 31, all the prisoners for debt in Scotland were liberated in accordance with Dr. Cameron's act which came into operation on Saturday, January 1.

The snow was five feet deep in London, England, last week, and the suffering among the poorer classes was terrible. The Thames River overflowed its banks and an immense amount of damage, estimated at fully $10,000,000 was done.

Reports from South America say that in a severe fight between the Chilians and Peruvians, the latter lost 7,000 killed and wounded 2,000 prisoners in the battle of Charollos, and the Chilians now occupy Lima, after again defeating the Peruvians at Miraflores, where the latter had 25,000 men in line. The Peruvian leader fled. It is said that an armistice has been arranged, and a treaty of peace will probably follow.

EDUCATION IN THE SCHOOLS.

BYRON, Jan. 17th, 1880.

To the Editor Michigan Farmer.

I see in the FARMER of the 11th instant, an article, "Agriculture in Schools." Now, sir, what I wish to say is this; I do, in a great degree, endorse what Mr. Kerr (the author of article referred to) has said about introducing political economy and international law into our schools.

But there are some objectionable points in that gentleman's letter. First he says, "it does not seem necessary to introduce practical agriculture into our schools," and secondly he says; "that America is producing too much for the welfare of the farming community."

Now, as to the first point, I wish to say, that if we, who are to be farmers, neglect this important branch of our industry, (the study of agriculture) we will necessarily fail in our calling. As to the second objection, that America is producing too much, it strikes my mind that it is erroneous. We cannot produce too much, the great trouble is it costs too much to get our products to market. And hence the chief trouble lies in the transportation maciine. The railroads are being consolidated, and are fast being placed under one management; they can, therefore, compel the western farmers to pay high rates of freight for shipping their produce over the road, of which the company exercises the franchise.

We are not producing too much; it is bad economy to say that the earth yields too bountifully for the welfare of the people. An increase of the products of the soil is an increase of the nation's wealth, and I can see no reason why it should be as Mr. Mr. Kerr says, "destroys the joys, comforts, and happiness of the American people.

A. E. RICHARDS.

Telegraphic History.

The recent consolidation of telegraphic lines has directed public attention to the subject, and in this connection a summary of the history of the telegraph companies in this country may prove interesting and lead to a better appreciation of the immense monopoly they have become.

In 1858, the Western Union Company had a capital of $385,700. Eight years later, the stock had expanded to $22,000,000; of which $3,32,000 was issued in the purchase of competing lines, while nearly $18,000,000 was issued in stock dividends. What actual value this enormous dilution may be supposed to have represented, can be judged of from the fact that the stock was not then worth twenty-five cents on the dollar. This, however, was the first attempt to spread out an increased paper capital, which should hereafter afford a plausible pretext for imposing on the public an oppressive tariff of charges. The next step was the purchase of the United States Company, for which purpose $7,216,300 of stock was issued, an amount alleged to be five times the true value of the property. Next came the absorption of the American Telegraph Company. The stock of this Company was almost as much inflated as that of the Western Union, and amounted to $3,833,100; and yet $11,833,100 of Western Union stock was issued to secure possession of that line. This brought the stock of this Company up to about $41,000,000, while the bonded debt exceeded $6,000,000. Previously to the death of President Orton, it was believed that the policy of this Company was to use a portion of its surplus earnings to purchase and retire its enormously watered stock, instead of using it as an excuse for maintaining high rates; but, on the death of President Orton, a new policy was inaugurated, which has since been dominant in the Company, and in 1879 stock to the amount of about $6,000,000, which was in the treasury at that time, was presented to the stockholders in addition to the usual dividends.

The Annual Report of the Western Union Company for 1880 states, as follows: "The capital stock of this Company is $41,073,410, of which there is in the treasury belonging to the Company $58,855.50, leaving the amount outstanding, on the 30th of June, 1880, $41,014,554.50." The bonded debt at the close of the year was $6,096,229.64. In addition to this enormous amount, on which the public is expected to pay dividends, this Company has practically absorbed the Atlantic and Pacific Company with a nominal capital of upwards of $15,000,000. This furnishes another illustration, the truth of which is ultimately vindicated, that in such enterprises, competition always ends in combination, and the public are ultimately obliged to pay for the construction of duplicate lines which are not needed, and are only constructed for the purpose of forcing a "divide" of the enormous sums charged the public. Another movement in this direction is even now in progress; the "American Union Company," controlled by Mr. Gould, is constructing a system of lines, which will doubtless, in due course, be taken n as all its predecessors have been, and the cost of construction of which will in the end come out of the pockets of the public.

Farm Law.

Inquiries from subscribers falling under the head of "Law in Relation to Agriculture," will be answered in this column or by letter. Address communications to Henry A. Haigh, Attorney and Counsellor at Law 36 Seitz Block, Detroit Mich.

OWNERSHIP OF LAND UNDER LAKE OR SWAMP.

AU SABLE, Jan. 16, 1881.

To the Law Editor of the Michigan Farmer.

SIR:—I am a subscriber of the FARMER, and would like to ask a question. I took a quarter section of land under the Homestead Act, and on one side of it was a marsh, which, at the time of survey was meandered, leaving the quarter section a fractional. Now, if I drain the marsh (which I can, as the outlet is through my land,) can I hold the land covered by it.

Respectfully, H. A. D.

Answer.—It has been held in effect by our Supreme Court that land bordering on streams and lakes extends to the middle of the stream or lakes. It has been so held specifically with regard to Detroit River and Lake Muskegon. I think there can be no doubt that the rule applies equally to ponds, bogs and swamps. In the above case H. A. D. undoubtedly owns the land in the swamp out as far as is necessary to complete his quarter section. H. A. H.

Father is Getting Better.

My daughters say, "How much better father is since he used Hop Bitters." He is getting well after his long suffering from a disease declared incurable, and we are so glad hat he used your Bitters.—A lady of Rochester, N. Y.—*Utica Herald.*

NEWARK.—Messrs. Howe & Lent, Druggists, of Newark, writes: Send us immediately six dozen St. John's Cough and Consumption Syrup. We assure you no medicine we sell gives such general satisfaction; the demand for it being beyond all precedent It gives us pleasure to sell a medicine so satisfactory to all.

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FINE DRY GOODS

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GREAT CLEARING OUT SALE,

—COMMENCING—

JANUARY 3rd, 1881.

We shall offer our **entire stock** of staple and fancy dry goods, **at greatly reduced prices.** We intend to sell a large portion of our stock before moving into our new store, in March, and to do this we expect to lose money. We desire to commence with a fresh stock. These goods will be sold **regardless of cost**, never in the history of our business have we been able to do our friends so much good.

Bargains will be found in every department. We call special attention to our lot of Black silks of over 10,000 yards, assorted grades, marked $1 25 to $2 50 per yard.

These goods will be put at a price **lower than ever** before known. Any person buying these silks can if they desire, have their money refunded if dissatisfied. **We must sell these goods —must reduce our stock,** and every one who can use a black silk for next summer, can save money by taking advantage of this sale.

We would call the attention of the **Trade** to this sale and will make it an object for any to purchase **now** for next Season's Trade. Customers from out of Town **will find it greatly to their advantage to visit us during this Sale.**

To Young Men

Come to Detroit and visit

Goldsmith's B. & S. Business University

after visiting all the business colleges you choose, and if we fail to produce a course of instruction, facilities, a corps of teachers and a suite of rooms superior to all others we will pay your expenses here and give you a course gratis

☞ College paper mailed free.

The Michigan Wheelbarrow Seeder.

FOR CLOVER AND GRASS SEED.

The only Iron Wheel Seeder in the market. The only accurate, durable and workmanlike Seeder made for sowing clover and grass seed. Send for circular describing latest improvements. Seeders now ready for the spring sowing of Timothy or Clover. Single machines delivered aboard the cars here for $9.00. Liberal discount to dealers.

V. & M. GIBBS, Homer,

d21-13t Calhoun County. Michigan.

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E. P. EARL, agent for the sale of the best brands of **French and American Window and Picture Glass** by light or box, also ornamental figured glass. I will also furnish the best finished sash, ready glazed, and at lowest price in the city or State. Orders by mail strictly attended to.

n2-1y 42 JEFFERSON AVE., DETROIT.

For ONE DOLLAR

I will send to any address, full description and working model of the best cow stanchel in the world; let out or fasten the whole stable full at once handle each head separately as well as with any other kind; any one can make them; no patent. Address FRED WELLINGTON.

ja18-tf Carrollton, Mich.

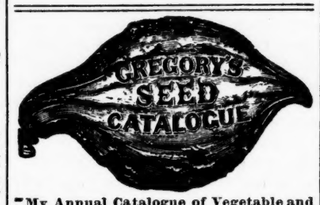
FOR TEN CENTS

I will send a receipe for the best wagon grease for either warm or cold weather; costs less than two-thirds as much as any kind on sale, and is much better; saves wagon and time greasing. Address FRED WELLINGTON, Carrollton, Mich.

FOR SALE CHEAP

A beautiful thoroughbred Jersey bull calf. Sire, Duke of Portage, 1270; dam, Juno, 3420. Dropped December 15, 1879; a choice specimen and entitled to registry. Address THOROUGHBRED, Box 453, Adrian, Mich. 67-

NEW ADVERTISEMENTS.



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Market Gardeners, in the vicinity of Detroit and elsewhere, will consult their own interests by procuring their seeds of D. M. FERRY & CO., who make a specialty of supplying to those who garden for market the choicest and purest stocks.

☞ Special rates on application. je-1y

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I have just secured the exclusive agency for this fine new white grape. It is handsome, hardy, and a vigorous grower. Has proved a very profitable market grape. Highly recommended by the leading grape growers of the country who had a chance of testing it. Address all orders to

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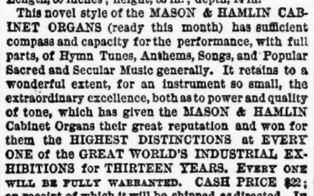

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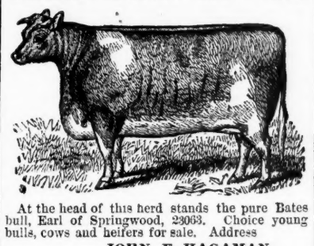

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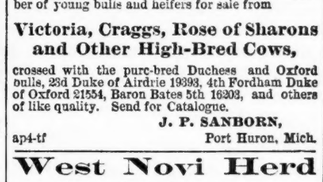

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Poetry.

SNOWED UNDER.

Of a thousand things that the year snowed under—
The busy Old Year that has gone away—
How many will rise in the spring, I wonder,
Brought to life by the sun of May?
Will the rose-tree branches, so wholly hidden
That never a rose tree seems to be,
At the sweet spring's call come forth unbidden,
And bud in beauty and bloom for me?

Will the fair green Earth, whose throbbing bosom
Is hid like a maid's in her gown at night,
Wake out of her sleep, and with blade and blossom
Gem her garments to please my sight?
Over the knoll in the valley yonder
The loveliest buttercups bloomed and grew;
When the snow has gone that drifted them under,
Will they shoot up sunward, and bloom anew?

When wild winds blew, and a sleet-storm pelted,
I lost a jewel of priceless worth;
If I walk that way when snows have melted,
Will the gem gleam up from the bare brown earth?
I laid a love that was dead or dying,
For the year to bury and hide from sight;
But from a trance will it waken, crying,
And push to my heart, like a leaf to the light?

Under the snow lie things so cherished—
Hopes, ambitions, and dreams of men—
Faces that vanished, and trusts that perished,
Never to sparkle and glow again.
The Old Year greedily grasped his plunder,
And covered it over and hurried away;
Of the thousand things that he hid, I wonder
How many will rise at the call in May?
O wise Young Year, with your hands held under
Your mantle of ermine, tell me, pray?

THE BALLAD OF PROSE AND RHYME.

When the ways are heavy with mire and rut,
In November fogs, in December snows,
When the north wind howls, and the doors are shut
There is place and enough for the pains of prose;
But whenever a scent from the whitethorn blows,
And the jasmine-stars to the lattice climb,
And a rosalind-face to the casement shows,
Then hey!—for the ripple of laughing rhyme!

When the brain gets as dry as an empty nut,
When the reason stands on its squarest toes,
When the mind (like a beard) has a "formal cut,"
There is place and enough for the pains of prose;
But whenever the May-blood stirs and glows,
And the young year draws to the "golden prime,"
And Sir Romeo sticks in his ear a rose,—
Then hey!—for the ripple of laughing rhyme!

In a theme where the thoughts have a pendant strut,
In a changing quarrel of "Ayes" and "Noes,"
In a starched procession of "If" and "But,"—
There is place and enough for the pains of prose;
But whenever a soft glance softer grows,
And the light hours dance to the trysting-time,
And the secret is told "that no one knows,"—
Then hey!—for the ripple of laughing rhyme!

ENVOY.

In the work-a-day world—for its needs and woes,
There is place and enough for the pains of prose;
But whenever the May bells clash and chime,
Then hey!—for the ripple of laughing rhyme!

—*Austin Dobson.*

Miscellaneous.

OVER THE GULF.

BY HENRY MORFORD.

(*Concluded.*)

Half an hour later we left the piazza. The rain had ceased entirely, though the mountains were still shrouded in mist; and the enthusiastic and hopeful among us had determined that the clouds *must* break away during the night, whether they had any such disposition or not. The peaks had been hidden alternately by cloud and smoke, for the past two days, and a party of more than twenty were gathered at the Crawford, awaiting for a favorable moment to make the ascent.

A book was kept at the office, as usual in such places, in which, during every day, those who wished to secure horses and guides for the succeeding or the first favorable day, registered their names, with the number of animals required, and how many of them were to be ridden by ladies. A good many queer autographs might be observed in that book; for it was no rare thing for young Witt, one of the proprietors, to amuse himself by telling immense stories to some of the initiated behind the counter, just as the uninitiated were coming up to register their names,—about the perils of the ride, and how nearly he or others had come to falling over precipices of indefinite thousands of feet. This sometimes shook the nerves at the moment of booking, and I have no doubt he adopted the plan as a means of securing an original collection of chirography.

Some twenty names were booked on the afternoon in question, among them Rowan's and my own. As neither of us had ladies in charge, our intention was to make a great part of the trip together, while his two friends, who were also to be of the ascending party, would "pair off" in the same manner.

Rowan had gone up to his room to dress for supper, after the entry of our names, and I went out to the piazza to take one more look at the weather, and make sure whether my mistress Nature really intended to be amiable on the morrow. As I came out at the door, a close light carriage with two pairs of foaming horses—the carriage well covered with mud—whirled round the corner of the Crawford and drew up at the door. The driver sprung from his seat, and the carriage-door was opened. Out of it came Mrs. Vanderlyn, her daughter and son, who had left the Profile after an early dinner, and driven through post in this manner, under the impression that the next morning might after all be a fine one, and anxious to join any party which would be likely to make the ascent.

"Whew!" I said to myself—"here's more of my romance! Surely that haughty woman and her son do not know of the presence here of my friend of the bearstakes and the dancing-room, or they would not have taken so much trouble to join his company."

However that may have been, an hour after I found two more names booked for the ascent—those of "Francis Vanderlyn" and "Miss Bell Vanderlyn," the mother evidently not intending to expose herself to the fatigue, but to await their going and return at the Crawford.

Rowan, I think, did not know of their arrival until he came in to supper. They sat nearly opposite me, and Rowan at some distance up, on the same side of the table. He took the customary glance down the table as he seated himself, and I caught one instant's surprised expression on his face, though it faded in that instant. He left the table before the Vanderlyns did so, and, consequently, they did not encounter each other. I left almost immediately after Rowan, and I know one thing he did which I would almost have sworn in advance that he would do: he went to the office and looked hastily over the list of "Horses for Mount Washington." I saw him, without myself being noticed in my surveillance, and saw the queer expression which flitted over his face as he recognized the names. It might have been satisfaction—it might have been defiance; but it seemed to me to be capable of translation into words very like these:

"So, good people, you are running yourselves into my way again! You had better be poorer, or richer; or you had better keep the distance which I put between us!"

A few moments after I joined Rowan, at his own invitation, in a game of ten-pins, for which athletic and not very scientific sport it will have been noticed that he had a strong predilection. Worse alleys than those at the Crawford, at the time, I am confident no man ever saw. Such a thing as a "ten-strike" had never been recorded on the black-boards, as made on those long lines of uneven and floor-laid planks. Rowan and myself had quite enough to do in getting down a "frame" with three balls, not to mention looking out for an occasional "spare;" and not a word outside of the game passed between us.

Suddenly, and when he had rolled two of the three balls at a frame, he stopped short with one of the *lignumvitæ* globes in his hand, of about the size of his head—twirling it as if it had been a paper-balloon—and said, in a short, curt tone:

"They have come!"

"Yes," I said, not pretending for one moment to be doubtful about his meaning. "I saw them at supper."

"Going up with us to-morrow!" he rejoined.

"So I believe," I replied.

"Humph!" was all the comment he made. Then we bowled away at the ten-pins more violently than ever, Rowan especially. I remember thinking that there was something in the nervous jerk of his arm in bowling, suggestive of shooting somebody down one of the mountain precipices like a pebble-stone, or sweeping away a fate like a cobweb with those globes of *lignumvitæ*.

We held no more conversation on any subject that night; and after a couple of games parted with a mutual reminder that the stars were shining, that the motto would be "to horse and away!" early in the morning, and that we must not be laggards at breakfast.

Neither Rowan nor myself need to have been anxious about waking in the morning; for such a blast and roar as swept through the corridors of the Crawford at about seven, from the big Chinese gong in the hands of an enthusiastic negro, would have awakened anything short of the dead. For once, every one obeyed the summons, and the breakfast table was soon surrounded.

When we came out from breakfast, the scene at the door was at once singular and enlivening. Some twenty-five names—more than half ladies—were on the book for the ascent; and that number of horses were scattered over the broad open space in front of the door. All were saddled and bridled; but among them moved half-a-dozen guides in rough coats, thick boots and slouched hats, inspecting and tightening the girths, looking to the cruppers and bridles, and paying especial attention to the animals provided for the female portion of the cavalcade, for whose safety they hold themselves and are held by the hotel proprietors, peculiarly responsible.

By the way of background to this singular scene, under a clump of trees to the right, walked two full-grown black bears chained and surly, ever keeping their weary round and grunting out their disapprobation at being confined to such narrow quarters.

But what a spectacle was presented when the mount was ready, and the riders emerged one by one from the door of the Crawford! Were these the belles and beaux of the day before? If so, never had such a metamorphosis taken place since the days of Ovid. Every man had some description of slouched hat; coarse and old trowsers were turned up over heavy boots, and the roughest of box-coats worn over striped Guernsey shirts still rougher, Dilapidated gloves completed the equipment of a set of men who certainly looked too badly for brigands, and seemed the victims of some hideous masquerade.

But if we looked badly, what shall be said of the fairer portion of our cavalcade? Salvator Rosa never dreamed of such objects, and Hogarth would have gone mad in the attempt to depict them. Ringlets were buried under mop-caps and smothered in bad straw hats; hoops had suddenly ceased to be fashionable, and every shape, bulky or lank, showed in its own undisguised proportions, the very worst riding-dresses possible to achieve had been carefully gathered; and if the men were the ugliest brigands of the dark-souled Italian painter, the women were the drollest witches that ever sprung from the brain of the great dramatist.

Of the mount, it is only necessary to specify four of the horses, which have to do with this story. Miss Vanderlyn had a neat little black pony, very careful in step and an old stager at ascending the mountain. Her brother Frank rode a tall bay, of high spirit and better action than any other horse on the ground. Rowan had asked Hartshorne (I heard him) to give him the worst-tempered horse in the stable; and he had been accommodated. So far as I could judge by his actions, he would kick, bite, strike, balk, shy on one side, and do everything else wicked and unsafe, except stumble—from which latter fault he was entirely clear. He was a bay, of perhaps fifteen-and-a-half hands, and had evidently blood, foot and bottom—the middle qualification of little account in making the ascent of a mountain. My horse was a spirited gray mare of moderate size and with a dash of blood, that had been unused for a month from having nearly broken the neck of one of the proprietors, and was allotted to me, with excellent judgment, because my neck was considered to be of less value than any other in the party.

Thick mists still hid the tops of Mount Webster and Mount Willard, visible from the house, and hung amid the heavy woods of Mount Clinton, as at nine o'clock, all mounted, the guides took their places, one at the head of the cavalcade and the others at intervals through it, and we set off up the mountain. I should mention, here, that I saw, during the mount, the only recognition which took place between the principal two of my *dramatis personæ*—Rowan and Miss Vanderlyn. Frank Vanderlyn was mounting his horse, after having assisted his sister to her saddle, when Rowan brushed by on his vicious bay, very near her, to the left. Their eyes met, I am sure, and I saw Rowan bend so low that his head almost touched that of his horse. Bell Vanderlyn replied by a gesture quite as mute, and unobserved by any others than Rowan and myself, I am confident. She nodded her head quickly but decidedly, and threw the roughly-gloved fingers of her left hand to her lips. That was all, but quite enough to be satisfactory to me, and I have no doubt satisfactory enough to Halstead Rowan to set the blood boiling within his manly veins with all the power of the Iceland Geysers.

Rowan and myself had places near the middle of the line, but as the cavalcade moved he was missing. I called to him to "come on!" and he answered with a wave of his hand, and a shout:

"Go ahead! I will be with you directly!"

We had surmounted the first acclivity, perhaps a mile from the Crawford, and were commencing a slight descent which made every rider look to the horse's feet and ride with a slight tremor—when the stillness was suddenly broken—broken in a manner which almost curdled the blood of the timid and needed a second of reassurance even for the boldest.

"Pop-pop-pop-pa-hoo! Hoo-oo-oo!" came from the path below, with the hideous power and distinctness of the lungs of the Oregon Indians.

"Good Heavens! what is that?" cried one of the ladies near me.

"An Indian war-whoop, certainly! But surely there cannot be hostile Indians *here!*" was the reply of the gentleman accompanying her.

For an instant I was puzzled, myself; then I remembered its probable origin. I broke into a laugh.

"Do not be alarmed, ladies!" I said, as if I alone had not been startled. "Our Indian is white—depend upon it! And see—here he comes!"

We were at the moment descending a quarter of a mile of most difficult and dangerous path, in which every rider experienced a slight tremor, and over which the horses were picking their way as if they realized that human necks were in peril. At the instant when I turned my head, Rowan had reached the top of the rise, and was just giving vent to a second and supplemental yell which rang through the woods as if a dozen throats had been blended, and which must have been heard for miles.

"Pop-pop-pop-pa-hoo! Hoo-oo-oo!"

He was coming down the descent, too, but not like the rest of us, on a careful half-trot, half-walk; on the contrary his horse had his ears laid back and was going at a gallop over the stones as if he had been on a rough highway. The reins seemed loose on his neck, and—could I believe my eyes? So surely as we were threading the tangled woods of Mount Clinton, Halstead Rowan sat his horse backwards, his back towards us and his face to the horse's tail!

"Good Heavens!" "The man is mad!" "Oh, stop the horse—he will break his neck!" were the exclamations that broke from the party as Rowan's equestrianism was recognized—most of them from the female portion of the cavalcade. I could not see Bell Vanderlyn's face at the moment, though I would have given much for the privilege of knowing whether anxiety or confidence predominated in her expression.

But our rider did not pause, nor seem very much in peril. His horse kept his feet quite as well as our own; and for myself, remembering now the Comanches and the Arapahoes, I was forced to believe that the wild rider must have the Indian power of communicating his own will to the horse, and that he could ride almost anywhere and in any manner in safety.

Rowan drew rein and turned himself half around in his saddle as he came up with the cavalcade, and said:

"I hope I did not startle any of you ladies with my Indian whoop? The woods tempted me, and I have not enjoyed such an opportunity for the use of the lungs in a twelvemonth. If you hear it again, I pray do not fancy that you are in the wilds of Oregon!"

"Is not your riding a *little* careless?" I asked.

"Just the very least in the world, perhaps!" he answered, "but not half so bad as it looks. Come, M.," addressing me, particularly, "will you push on with me a little further ahead?"

"At *your* rate of progress? No!" I answered. "I am too bad a rider for that!"

"Well, bye-bye, then!" he said, and the next moment, darting by the line, and taking precedence even of the leading guide, I saw him ascending the next rise, his horse trotting along riderless, and himself springing from crag to crag beside the path, with his hand on the horse's back, and the bridle lying loose on the animal's neck. He had alighted, I am sure, without stopping the horse at all.

But a few minutes later, and when we had reached the top of Mount Clinton and were coming out from the gloom of the heavy woods into the partial sunshine—I saw him riding over a short distance of road that was only moderately bad, standing erect on the horse's back, and supported by the reins and his own balance—and heard his cheery voice ringing out a song that seemed as complete a medley as his own character.

Still later, the whole cavalcade were thrown into horror by coming upon him, as we rounded a gorge near the top of Mount Prospect—his horse on a walk and himself hanging over on one side, apparently by the heels! The impression prevailed that he must have been knocked senseless by a limb, and got his feet entangled in the saddle; but it seemed that he was only practising the Indian mode of hanging on one side of his horse, supported by one hand at the neck and one foot over the saddle, after the manner of the western tribes when throwing the horse between themselves and the shot of a pursuer!

After a time the reckless fellow seemed to have grown tired of his humor; for as we crossed over the peak of Prospect to Monroe, and the north-west wind and the sun had so driven away the clouds that we began to realize the glorious prospect bursting upon us on every hand—he took his place in the line, sat his horse like the others, and joined us in our admiration of the scenery with a power which showed him to be a true and cultivated lover of nature.

By two o'clock we had dined in the Tip Top House, and drunk our fill of beauty, and collected all the geological specimens that our horses promised to carry down the mountain, and bought maps and books as memen'oes of our ascent; and we heard the warning of the guides that we had no more time remaining than would carry ourselves and our tired horses back to the Crawford by nightfall.

I have not the slightest idea what could have induced the choice, except that he thought me so staid and grave as to be utterly harmless,—but as we climbed down the broken rocks again to our horses, Frank Vanderlyn, with whom and his sister I had casually spoken several times during the day, touched me on the shoulder and said:

"Would you have any objection, as I see you have no lady in charge, to ride near my sister on the way down?"

"Certainly not!" I replied. Do you remain on the top yourself?"

"No," he said, "but the fact is that my horse kicks. He kicked my sister's horse twice in coming up, and I am afraid of some trouble. It will be better for me to drop behind, where he can do no injury."

It may be supposed that I consented at once, though I had no idea whether Miss Vanderlyn or myself would be taking care of the other! A few words of explanation between Vanderlyn, his sister and myself followed; and I, who had come up the mountain without any lady, and only in the casual companionship of a man who continually rode away from me, found myself, going down it with the fairest member of the company in charge!

I do not think that Rowan and the lady had been flung together alone, for one moment during the day; though I had little doubt that, could both have had their choice of companionship, they would have stood side by side, and without others too near, at the High Altar, a shivered piece of which lies on the table beside me as I write. I felt obliged, in courtesy, to whisper a word of explanation to Rowan, who passed me as he went to mount. His reply was brief, curt, and expressive:

"Phew!"—the whistle very much prolonged. The moment after he was in the saddle; and very soon we commenced the descent, still more laborious than the ascent, myself riding immediately before Miss Vanderlyn, at about the centre of the Indian file (the only possible mode of riding in those narrow bridle-paths)—Rowan perhaps half a dozen yards further behind, and Frank Vanderlyn, with his dangerous bay, bringing up the rear.

I found opportunity for a few words with my fair companion, as we descended the peak and rode back over the broad top of Franklin towards Monroe. She conversed genially and easily, and had evidently enjoyed the day with the full warmth of an ardent nature. She seemed an excellent horsewoman, and found leisure from the care of picking her way, to look back several times over her shoulder. To this day I have never known whether her regard was directed at her brother, at the extreme end of the line, or at some one nearer!

We were crossing Franklin to Monroe, over the narrow back-bone of land I have before mentioned, and at the very point where Oaks' Gulf, now on the left, and the terrible Tuckerman's Ravine at the right, narrowed the whole causeway to less than a dozen of feet,—when I heard a sudden and sharp cry behind me. At the cry I turned instantly, though I could not suddenly check the course of my horse down the path; and as I turned, my blood chilled in my veins, as it has never chilled before, and as I pray Heaven it may never chill again.

Bell Vanderlyn sat on horseback on the very top of the boulder overlooking two thousand feet of ravine on the right—within three or four feet of the edge—the stone yet slippery with the rain of the morning, and sloping downward perceptibly, as I had that morning observed!

What could have induced her trained horse to spring out from the path to that perilous elevation, has ever since been a mystery. At all events, such was the situation; and the thought of it, even at this distance of time, is quite enough to set the heart beating painfully. I did not know, then, how many of the cavalcade saw it, or how the blood of all stood still with dread and apprehension. One more move of the horse's feet—one slip on the stone, and she would as certainly go over that dizzy precipice as she had grace and love and beauty crowning her life and adding to the expected horror of her death.

"For God's sake—do not move! One moment, and I will be with you!" I found means to articulate, while trying to plunge my horse far enough down the path towards the level to enable me to alight, so that I could spring back and catch hers by the bridle.

"Oh yes, quick—quick!" I heard her say, in a convulsive, frightened voice. You don't know where I am!" Poor girl!—I did know where she was, too well. She was braver than most women, or she would probably have jerked the bridle and sent her horse slipping down the ravine; but the situation was a fearful one, and there are few living who could have braved it without a tremor. A man might have alighted, and left the horse to its fate; but to a woman, encumbered in her long clothes, the attempt must have been almost certain destruction.

Let it not be supposed that any such length of time had been consumed in action, after I saw her on that perilous height, as I have employed in this narration. Perhaps not sixty seconds had elapsed when I succeeded in checking my horse, swung my foot out of the stirrup, and attempted to spring to the ground—when there was a sudden rush over the rock, a clatter of hoofs, a scream of horror along the whole line, and Bell Vanderlyn sat half fainting on her horse in the path, with Halstead Rowan, also on horseback, and ahead of her!

Of course I could not know precisely what had occurred to produce that sudden and singular change, and only learned, the moment after, from those who had been behind. At the moment of seeing her peril, Rowan had uttered the single exclamation: "Well, I swear!" (a rough phrase, and one that he should by no means have used; but remember his Western life, good reader!)—dashed his spurs into the side of his horse—crowded by the five or six who preceded him, in a path considered impassable for more than one horse at a time—spurred up to the side of the rock, between Bell Vanderlyn and the edge of the precipice, certainly where his horse's feet could not have been thirty inches from the slippery edge over that horrible gulf—and pushed herself and horse off into the path by the sheer force of the speed at which he was going, coming down himself in the path ahead of her!

The scene which followed, a moment after, when we reached a little plateau where the company had room to gather, will not be easily effaced from the memory of any who saw it. The overstrung nerves of the perilled girl gave way, and she dropped in a swoon from her horse, just as Rowan (singular coincidence) had alighted from his own and was ready to catch her. Frank Vanderlyn and those who had been behind came up at the moment, and I saw him frown as he observed that his sister was lying in the arms of the man whom he had so grossly insulted. But if he frowned he said nothing; and I am not sure that it would have been safe, just then, for an emperor, there present, to have spoken an ill-word to the hero of the day.

Be that as it may, Halstead Rowan retained her in his arms until some one succeeded in obtaining water from a clear deposit of rain from among the rocks; no one attempted to dispossess him; and when she first gave token of the full return of consciousness, she did so by clasping her hands around Rowan and murmuring: "My preserver!" very much after the manner in which they do that sort of thing in novels. He did not kiss her, as some others might have done, and as I am willing to take the same oath that he wanted to do; but perhaps it was quite as well that he did not.

A quarter of an hour after, Miss Vanderlyn was sufficiently recovered to ride, and we took our way more slowly down the mountains. The scenery was even lovelier than that of the morning, under the western sun; but scarcely one of the cavalcade but had been so stirred to the very depths of human sympathy, that inanimate nature was half forgotten, beautiful though it might be. Halstead Rowan, as we resumed our way down the mountain, would have taken his place again far back in the line, but for a lowtoned request which I heard, that he would remain near her. I was not quite discarded, but Rowan took occasion, as he passed me, to hit me a forcible punch in the ribs, and to say, maliciously:

"Bah! Can't you do any better at taking care of a woman, than that?"

I forgave him, for his brain, at all times a little unsettled, had evidently been quite overturned by having the auburn hair lying for a few moments on his breast; and I had my opinions of the result. For just such dare devils as Halstead Rowan there is always a "sweet little cherub" sitting "up aloft," to watch their getting into scrapes and out of them.

I know nothing of what occurred among my principal *dramatis personæ*, after we reached the Crawford at sunset that evening. We were all very tired, very much exhausted, and very sleepy; and even romance was obliged to succumb to aching bones and the invitations of soft pillows. Rowan did not roll a single game of ten-pins before he took his taper and retired to his lonely chamber.

I left the Crawford the next morning, on my way southward, without meeting any of the Vanderlyns, and without more than a farewell word to Rowan.

"How do you feel?" I asked, as I was stepping to my seat in the stage, and reciprocating his hit of the day before by a sly punch in the supposed neighborhood of the heart.

"Worse—much worse!" he answered, with a droll attempt at looking melancholy. Poor fellow!—I believe that for the time he did! A warm grasp of the hand on either side, and I separated, probably forever, from one of the noblest and oddest specimens of manhood it has ever been my fortune to meet.

I have never met him since. Nor have I seen either of the Vanderlyns. Nor do I know a single detail, further, of the progress of what I at one time considered "my romance." But there lies upon my table, very near the stony fragment of the High Altar of Mount Washington, before-mentioned,—an envelope, now a little discolored, which I received from Baltimore late in the winter following our summer adventure. Within it are two cards, one of which reads—"Mr. and Mrs. Halstead Rowan,—Calvert street," and the other, "Isabella Vanderlyn."

Whether Halstead Rowan became richer, or Isabella Vanderlyn poorer—whether Mrs. Vanderlyn and her son died, or relented in their social opinions—whether the energetic roller of ten-pins still practises that athletic game, or whether he has so far forgotten his Comanche training that he could not ride a saw-horse without danger of a tumble,—all these lie beyond my line of vision. I only know so much of the story as briefly preceded and immediately followed that terrible moment of *Over the Gulf!—Morford's Magazin.*

A GREAT MISTAKE.

By the Author of "Rose of the World," "Edgel Tools," "King Copheiua, or, Ruby North's Lovers," &c.

A busy hum of voices and laughter rose from the convent-garden, and reached the ears of the solitary patient in the infirmary, who was lying back in a big easy chair, her eyes closed, her hands weakly folded in her lap.

She sat up and listened, smiling.

The dusk was falling on the prim cool room and its white beds and pictures of saints and martyrs; the tops of the tall trees outside the window were turning brown against the saffron sky; a long flight of birds flapped slowly across it fading tints.

In an adjoining room, within call of the convalescent's feeble voice, sat a lay-sister stitching peacefully in the lingering light, and singing as she sewed. A yellow glow from the sunset sky fell on her face and hands; shadows were gathering behind her and around the folds of her black serge gown.

Quærens me, sedisti lassus,
Redemisti crucem passus;
Tantus labor non sit cassus,"

sang the nun in her sad contralto, as the voices of the girls at play rose again in a sweet clamor from below, tempting the patient to stand up and to walk in her long gray wrapper to the window, catching at the wall and the chairs as she did so to steady her feeble and uncertain steps.

"There they are!" she said half aloud, planting her hands on the broad oaken sill and looking down into the tranquil grass-grown square below. "It is the first *Cours*."

The quaint old garden-alleys were thronged with dusty flitting figures, all chattering and running and laughing in the sweet September twilight. Now and then a yellow leaf floated down upon the grass; the lights of a city were beginning to twinkle in the purple distance beyond the pastures and orchard and garden.

"When I saw the garden last, the rose bushes were in bloom," thought the girl at the window; "now there are only dahlias with their pretty quilled ruffs. They are better quilled than the sisters' cap-borders even! There is Sister Margaret! She is so tall I can tell her from the rest. She is lifting up a dahlia that has been trodden down, and is propping it tenderly against its neighbor. I wonder whether she thinks it ought to be all black and sober, like her gown, or if she is ever puzzled to know why flowers were made so beautiful and of so many colors?"

The lonely young Protestant girl sighed. It was getting darker. Two novices, who had been walking under the orchard-trees, came slowly towards the house, gliding like ghosts in their long white veils.

Then a bell clanged out solemnly from the tower, and the happy buzz of voices and laughter ceased as if by magic.

"They are going in!" cried Lucy regretfully, but her face brightened as two or three handkerchiefs were waved aloft on the chance that she might be looking out.

"Good night! Good night!" She nodded, smiling and kissing her weak little hand.

Two by two the first *Cours* filed through the garden-gate and crossed the broad gravel drive that separated it from the convent; with sober feet tall Sister Margaret brought up the rear.

There was nothing to look at any longer but the fountains and the falling leaves and a last long string of birds flying slowly towards the south.

"Good night, birds!" said the girl at the window, nodding at them, too, from her perch. "I suppose you are going home to your nests? Well"—with a sigh—"it is not every bird that has a nest to go to. Fly away before it gets quite dark!"

Even the birds were gone at last, followed by two wistful eyes in their flight towards the brightening lights of the city.

"There are homes there," Lucy was thinking. "Those dim yellow dots that I can see beyond the trees are lights shining in the streets and houses where happy girls live, who have their fathers and brothers to love them and take care of them. Oh, shall I ever have a home again, or shall I live and die, I wonder, among the kind sad nuns who try so hard to make me happy?"

The pretty forlorn head sank back wearily against the oaken panel by which the child stood.

A low murmur of conversation was audible now in the next room, where the lay-sister sitting at her work had been joined by a companion in her hour of recreation.

"Give me St. John!" said a bright young voice. "I don't know why you think so much of St. Peter! Did not he do that for which he went out and wept bitterly?"

"That shows that he was sorry for his fault, Sister Agatha," returned another in mild accents.

Lucy listened dreamily, still standing with her head against the wall and her hands behind her.

The sisters, in their coarse serge gowns and stiff caps, were talking in all reverence, but with the utmost simplicity, of their favorite saints, as if they had but that moment held them by the hand and spoken with them.

"That may be," conceded Sister Agatha somewhat reluctantly; "but I can't help thinking that he must have been of a mean disposition, or——"

"Hush, hush, sister!" remonstrated the gentle champion of St. Peter.

"If he heard you, he might feel angry and refuse you admission at the gate!"

"No, he wouldn't!" returned the bright voice, breaking into a laugh. "He knows very well that I don't half mean it. He looks at what is in the heart, and not what is on the lips! And indeed I have been praying to him in the chapel, as well as to St. John for Lucy Thrale. Is she any better to-night, Sister Irene?"

Lucy Thrale's lip began to tremble.

"And I cannot be contented among them any longer!" she thought. "I cannot, I cannot! It is very wicked of me to find the days so long and so dull—or is it that the sisters are contented because they have never had such a glimpse of the world beyond the convent gates as I had during that one happy year at uncle Robert's? Oh, how happy it was! Yes—it was—in spite of the miserable ending. How short the long summer days used to seem, and how much there always was to fill them—the pictures at the Academy, the concerts at the Floral Hall, the new books from Mudie's, the pretty dresses! And next year I was to have been presented, and then I should have gone to balls and garden-parties like Ada. I shall never go to any now!"

"I will sit with Lucy for a while," Sister Agatha was saying cheerfully. "If you would like to go down to Benediction, there is the bell."

"Is it wrong, I wonder," thought the little listener, trembling and flushing—"can it be wrong to wish to live like other girls? I might as well be a nun myself as live here all my young days. Oh, it is hard! They are all so good to me; but I cannot keep my thoughts with them any longer. They will struggle through the convent bars in spite of me. If I could only follow my thoughts! but I must stay here, though, when spring comes again and the chestnuts are budding in the park, other girls will be riding there with kind young men to talk to, and the dear pretty princess will drive by, smiling among her children, as the hats go off so proudly before her, and Patti and Nilsson will be singing, and—oh, is all my life to be made up of shadows and regrets and longing? Shall I never begin to live again?

A long drawn vibrating chord rolled through the great vaulted corridors from the organ in the chapel, and the high melancholy voices of the nuns, who were practising together, pierced the silence with a sweet sharp thrill.

There was a triumphant sound in the notes, sad though they were—a sound that told of pain and longing struggled with, and of a battle won; but the music seemed to oppress with some unreasoning terror the young and restless heart of the listener.

"Oh, never—never—never!" she cried wildly, beating her hands together. "Everybody has forgotten me—nobody wants me—there is no place in the world for me any more!"

And, being still very weak and nervous, the poor child sank down upon the floor beneath the darkening window, bursting into a passion of tears, and put her hands to her ears as if to shut out the sweet and soaring sounds.

In a moment the lay-sister was by her side, and was calling softly to some person unseen.

Then a stout good-natured-looking woman, wearing the conventual dress, came into the room and helped to lift the sobbing girl from the floor and to lead her back to her easy-chair.

"What is this, Lucy, my child?" she asked in motherly accents, as she held the little flushed and throbbing head against her bosom. "I thought you were still fast asleep, and it seems you have been making a voyage of discovery round the room. I am very glad you felt able to walk; but you must not try your strength too soon. There now! Let me shake up your pillows for you. Is that quite comfortable?"

"Lucy put her two weak arms round the good nun's neck, and kissed her under the border of her great starched cap.

"Dear Mother Hardy!" she said, controling her sobs and trying to smile up into the anxious face that was bent over her. "I am afraid I startled you? I—I was a little nervous, I think. It was very silly of me, but——"

Her lip began to quiver again, and Madam Hardy, gently kissing her on the brow, turned away to ask Sister Irene to bring a light, making a pleasant little bustle in the room and seeming to transform it by her cheery presence.

"A cry now and then does no harm," she said brightly, as she returned to Lucy; "but I think you must let me measure the dose, as I do the doctor's drops."

The good nun was lowering the shade of the lamp, so as to suit her patient's eyes, and now proceeded to draw a small table close to the arm-chair and to empty her capacious pocket of a bundle of letters.

"There is your evening mail," she said, smiling. "I am besieged all day long with questions as to when you are to go down stairs; the First *Cours* have petitioned to have *congé* put off till then; and I tell them, my dear, that it all depends on yourself."

"I am trying to get well—indeed I am," protested Lucy tremulously, "I know you are worn out, mother!"

"Well, to tell you the truth, I shall be very glad to get you off my hands! Until then I shall never be able to have a proper night's rest, with my nightcap on, like a Christian nun."

"And the sisters too," added Lucy, smiling at the little joke. "I watched poor Sister Irene last night as I lay awake. She tried so hard not to fall asleep over her beads, but her shadow kept nod-nod-nodding its big cap on the wall, and she went off at last, poor thing!"

"That is what you ought to have done, my dear. Sister Irene is a little lazy-bones; but she is very willing to sit up with you, I know, for your own sake, as well as on higher grounds. There, lean back and rest yourself like a good girl while you read your letters, and I will go and see what I can coax them to send you up for supper."

The kindly mistress of health disappeared, and Lucy Thrale resolutely winked away the last of her tears.

"How good they all are to me!" she thought. "What should I have done if I had not had the dear old Sacred Heart to come back to? Ah, it was a pity I ever went away at all!"

She lay back, with a sigh, among her pillows, and began to open her schoolfellows' letters.

They were written in a variety of angular hands, and the envelopes were covered with various specimens of school girl wit, meant to cheer her up in her solitary confinement.

"For Lucy Locket, to put in her pocket," one was addressed, and another, "Miss Thrale, Upper Regions, Bedfordshire."

"Dear, dear Lucy," said one little note printed in large capitals and enclosing a damp lemon-drop—"I am head of the jography class. Come down soon and play 'Frere Jacques' with your loving little friend,

"HETTY."

The tears came rushing back to Lucy's eyes as she pressed this little letter to her cheek and covered it with kisses.

"I will not be discontented or ungrateful any more," she bravely decided. "Home means love, I suppose; and they all love me here, better than I deserve, but not better than I love them."

Madam Hardy now came back, followed by a lay-sister who was bringing Lucy's supper.

She looked at her patient and smiled, well pleased.

"That bright face does me good," she declared affectionately, as she prepared to do the honors of the white-spread tray.

"Reverend Mother Vernon is coming to see you presently, my dear; and, if you make a good supper, who knows but she may have a little surprise for you?"

Lucy looked up eagerly, flushing and trying to read her face.

"Now no guessing!" cried the good nun pleasantly. "Do you think I am going to spoil sport? You shall not hear a word about it until I have seen you eat something."

Thus encouraged, Lucy applied herself obediently to the simple dainties with which her table was furnished—preserves made by the white hands of the sisterhood from the fruit they had seen blossom and ripen on the walls as they passed the garden walks and read their pious little books, cream and butter from the convent-dairy, delicate brown bread, and some *bon-bons* in a pretty painted box.

"Barbara sent you these," exclaimed Madam Hardy, sitting down by Lucy's side and preparing to go on with the long black stocking she was darning. "She says there is a good wish in every one of them; but I am afraid you must only look at them for the present."

Lucy did not answer. She was anxious still, and a little fluttered—seeing which, her kind nurse took no notice, but went on talking easily over her stocking.

"Your little friend Hetty is in penance again for talking in class, my dear. Did you ever know such a young rebel?"

"Oh, the poor wee chatterbox!" cried Lucy, with a wan little smile—such harmless gossip as this was all she had to fill the great aching emptiness in her heart. "What have they done to her, Madam? Turned her dress inside out as usual?"

"Indeed, yes, and pinned a great red paper tongue to her back! So there Miss Hetty stands on a stool in the middle of the whole class, and——Oh, here is the Reverend Mother!"

The old nun stood up respectfully as the head of her community, a nervous sweet-faced woman, entered in her noiseless shoes, having a bunch of keys and several letters in her hand.

"Good evening, my child," she said gently to Lucy. "Mother Hardy, how is your patient getting on to-night?"

"Nicely, Mother. She has eaten her supper like a good girl."

The Superior paused in some indecision; and, in the hush that fell on the room, the high clear voices of the nuns in the choir rose soaring again through the long corridors.

Lucy Thrale did not hear them now. She

was hanging breathlessly on Madam Vernon's face and words; and she looked, near the two pale nuns with their sad yet peaceful air, like some embodied longing or passion that had lost its way in the living throbbing, outside world, and had wandered by mistake into the prim and tranquil convent-room.

The dimly burning lamp left the corners of the dark oaken chamber in shadow; but the light, which caught fitfully at Lucy's bright hair and sweetly quivering lips, shone steadily on the silver crucifix that hung by the Superior's side.

"*Pleni sunt cœli et terra gloria tua, Hosanna in excelsis!*"

sang the nuns below in a final burst of triumphal harmony.

"Oh, mother," pleaded the girl, "you have something to tell me! I hope it is not more bad news from home!"

Mother Vernon laid a kind hand on the eager uplifted head.

"When did you last hear from your friends, my child?" she asked, taking the chair which Mother Hardy had resigned and sitting down by the girl's side.

A sudden hot blush began to burn in Lucy's cheeks; the nuns exchanged compassionate glances.

"They have not written to you, I believe, since you came back to us, a year ago."

"It is my fault," whispered the girl wretchedly. "Don't blame them, mother; I caused them a great deal of trouble, and they sent me away. Poor uncle Robert! He did not understand; and now he is dead, and I can never ask him to forgive me!"

"Lucy," began the Reverend Mother cautiously, "would you like to go back to your friends again?"

The flash of joy that lit up Lucy's face was answer enough.

"You would be so glad to leave us all?" asked Madam Hardy, with a little tender reproach.

"No, no, no!" cried the child, catching at the pale hands of the old nun and holding them fondly against her feverish cheek. "You don't believe that—you who nursed me when I was so ill? But they are my own people; I have no one else in the world; and it is so dreadful to live at enmity with them Oh, madam"—she turned again to the Superior—"am I really to go home again?"

Madam Vernon smiled a little sadly and separated one letter from the packet she held in her hand.

Lucy took it eagerly and tore open the square black-bordered envelope. But a mist rose before her eyes, and, letting the paper drop into her lap, she sank back, trembling like a leaf, among her pillows.

Mother Hardy brought water and bathed the child's face; and then she sat up again, with a nervous laugh at her own weakness.

"The writing reminded me of so many happy things," she said; and at last she read her letter.

"Dear Lucy,—We are about to leave London, and to settle in Barlaston-Regis, where some of mamma's early friends reside. It would please me to know that the old unhappiness which existed between you and poor papa might now be forgotten; and I therefore ask you to come to us, and to share a home which, if less luxurious than in the days when you looked upon it as your own, is at least offered with the old affection by

"Your sincere ADA LUDLOW."

"Will you read my cousin's letter, madam?" said Lucy, holding it out with shaking fingers, while tears fell hot and fast upon the bosom of her gray wrapper. "I am to go home. Ada says so. And—oh, how soon do you think I shall be able to travel?"

Madam Vernon looked somewhat wistfully at the flushed and sparkling face before her.

"I will communicate with your friends, my child," she said. "You must be content to stay with us until you are stronger. I am afraid we should like to keep you altogether."

"Dear mother," laughed the girl hysterically, "I am growing too tall for the rest of the *Cours*. You had better get rid of me."

"The nun sighed as she stood thoughtfully creasing the letter between her long ivory-pale fingers; and Lucy, flinging her two arms round her neck, regardless of the great starched collar the exquisite neatness of which she was ruffling, cried fondly—

"I will come back and see you all, mother. You do not think I could ever forget you? I will love the Sacred Heart and every one belonging to it as long as I live!"

The Superior kissed the girl half sadly on each burning cheek.

"It is right that you should go home," she said. "But"—in a tender puzzled voice—"you are crying, my child?"

"I know I am," answered Lucy, laughing through her tears; but I am happy for all that. It is very good of Ada."

CHAPTER II.

On an oppressive and showery evening late in August, while Lucy Thrale's fever was yet raging and she was tossing restlessly in her bed with piteous wanderings and entreaties for forgiveness, two woman sat in an ill-furnished suburban drawing room, tasting, with shuddering and unaccustomed lips, the bitterness of life.

Mother and daughter.

People had already forgotten the failure of the great bankers Ludlow and Company, which had proved a nine days' wonder, followed as it had been, a few weeks later, by the sudden death of the head of the firm.

It is true that Robert Ludlow had, during one or two previous seasons, acquired considerable notoriety by the almost princely splendor of his entertainments, while his daughter was equally well known as a girl who dressed exquisitely and adapted herself with tact to her novel position, and who had been so much pitied on the occasion of her cousin's singular behavior.

But the crash had occurred ages ago—a year ago—quite at the beginning of last season; and since then there had been several appalling scandals to discuss, the latest being Lady Papillon's elopement with the popular tenor; so that no one had time to think any more about the Ludlows, or knew indeed what had become of them since the sale of the valuable pictures and *bric-a-brac* in the deserted mansion at Prince's Gate.

It would have been very painful, no doubt, and very useless to follow them in their narrow and vulgar lodgings in Maida Vale, where the widow and her daughter, now that the first terrible suffocating flood of excitement, terror, grief, had subsided, and their life was slowly sinking into the narrow channel in which it must henceforth wind its way, were learning every day, by dint of many rebuffs and privations and cruel contrasts, the heart-breaking fact represented by the vague word "ruin"—a word which had sounded at first like some threat uttered in a foreign tongue, and had conveyed but little meaning to their stunned and bewildered consciousness.

"We have nothing to expect from any one, mamma. It is better to look our position quietly in the face."

The voice of the speaker trembled; and, as Ada Ludlow laid down the letter she had just read aloud to the delicate woman on the sofa, she walked across to the rain-blurred windows and stood looking out, so that her face could not be seen.

Denmark Terrace was a dreary new built street, few of the houses of which were yet occupied. Hardly a light shone now in its long bleak rows; some bricks and rubbish lay in the middle of the road, along which a milkman's cart went splashing through the puddles. A dismal wind was blowing across a bit of sodden waste ground to the left, and the whole scene looked raw and sad and strange in the watery dusk.

Mrs. Ludlow's face fell piteously at her daughter's words. When Ada showed symptoms of giving way, the poor thing felt that things were indeed in a desperate condition.

She took up the letter and read it through again in a hopeless way.

It was written on very thick and smooth paper, and bore a handsome crest and address in gold and color, but the few chilly polite sentences the letter contained did not grow any warmer on a second reading.

"I did think we might count on the Davenants," the widow said dejectedly. "Your poor papa was always very good-natured to the boys about the shooting; and Blanche stopped with us a month when the children had scarlet fever."

There was no answer from the small black figure at the window, whose eyes were absently following the milk-cart across the dismal fields to another row of raw-looking houses beyond the church.

"It was not much of a favor to ask, after all. They must have a governess for the two little girls; and where could they find another like my Ada—so clever, and with such a beautiful French accent?"

"Mrs. Davenant has given us her reasons, mamma," returned her daughter quietly. And now she came back, very pale and composed, to her seat by the invalid's sofa, and resumed the work she had laid aside on the arrival of the letter. "It would be awkward, she thinks, to have a governess in the family who had once been on terms of equality with her own daughter—who had 'seen better days' is, I believe, the phrase in popular use. And I dare say she is quite right, mamma. Such people usually are unpleasant to deal with. We must only think of something else."

Mrs. Ludlow pressed her black-bordered handkerchief to her eyes.

"It is such a pity," she murmured. "You would have been living in your own set again; and who knows what might have happened? I'm sure Barty Davenant was always a particular admirer of yours!"

"That was before papa failed."

Miss Ludlow grew a shade paler as she spoke, and the work trembled in her hands.

"I declare I believe it was the idea of Barty that frightened Mrs. Davenant!" cried the widow, with mingled pride and vexation. "She thought of that too."

"The reason she assigns is more complimentary, mamma."

"And, if you remember, Ada"—brightening up under the consciousness of a new grievance—"the Forsyths and Ardens have grown up sons too! It was a pity you did not remember that before you applied to them."

"We may as well agree at once, mamma, that all these people are out of the question. We know at last, as I have said, exactly where we stand. We have nothing to depend on but the hundred a year which grandmamma Ludlow left me. It is better than nothing. We shall not starve."

"You always were the dearest and sweetest girl!" said the poor mother, gazing fondly at the small closely-braided head which was bending over an elaborate piece of macrame. "And when I think that, but for that wicked designing creature, you would now have been——"

"Hush, pray, mamma!" Miss Ludlow raised her eyes now—large, calm, white-lidded eyes they were—and laid a gentle finger on her lip. "You know I do not like to hear my cousin blamed, especially when she is not here to defend herself!"

"No"—the widow sat up, and an eager look came into her sad eyes—"because you never could be brought to believe the truth about her. And now see what we are reduced to through her treachery!" The poor thing burst into tears as she spoke.

(*To be Continued.*)

THE AMATEUR FARMER.

I dreamed of a beautiful time
When the world shall happy be;
When the elephants and hyenas
Shall blossom on every tree;
When tamarinds and potatoes
Shall cease their dreadful roar;
When turnip trees shall blossom
In the garden for ever more.

I dreamed of a great republic
When the people shall all go West,
Sow plums and reap tomatoes
In the land they love the best;
When pig iron and molasses
Shall bloom on every hill,
And chickens low in the barnyard,
While gooseberries toil at the mill.

I'm weary of seeing the cabbage
Handle the rake and the hoe;
I'm weary of watching and waiting
For the grasshopper bush to grow;
I long for the time when spinach
Shall cope with bread and milk;
When hens shall lay potatoes,
And horses spin raw silk.

Oh! sweet were the vanished hours
When I wandered down the glen,
And wreathed my brow with tomatoes,
Or plucked the ripened hen;
When the donkey twined up the trellis,
And the cucumber chirped in the grass;
And the sweet potato whistled
To its mate in the mountain pass

But gone are the days of childhood,
And manhood's dreams are mine;
Yet I long for the by-gone hours,
As I sit 'neath this Turkish vine;
Oh! wreathe your blossoms about me,
And soothe my aching breast;
While the gooseberry plaintively warbles
And lulls me into rest

During the War.

Those whose business or pleasure called them to pass the Oakland race course at Louisville, Ky., during the war, can never forget the mingled smells that reminded one of the valley of Hinnon, for the beautiful grounds with their towering shade had been turned into government stable yards, and it was not long before the teeth of the feeble, half-starved horses and mules had barked the trees, and the manure heaps rose like miniature mountains. Men worked constantly to keep a passable walk about the stables by the use of the shovel and cart, but so unavailable was the effort that, in mercy to the dying animals, the fences were thrown down that led to a higher ground, where some of the stronger strayed to crop the dried grass or taste the green that the chill-rains of early Spring had forced above the cold ground. You will call to mind the low temporary hut between that fence and Oakland gate, where the shoes from the feet of the dumb heroes of many a hard fought battle were piled as high as the rickety door. We never passed that horse barracks without a sigh for the poor brutes whose very silence spoke of the tortures they endured until, with broken spirit and sinking frame, they were allowed a furlough, and huddled here by hundreds to live or die, as time would soon decide. Here was a skeleton still walking about with a deep wound in his back where the cruel, ill-fitting saddle had pierced, and whose rider was as callous as the cold iron that made the wound. Here limped a grand chestnut sorrel with a foot crushed by the rushing wheel of the wild artillery, his emaciated body showing unmistakable signs of suffering. And early in the morning of each day, through the deep rut worn in the stone-paved road you might count by the dozen those which had died in the night, as they were dragged out by powerful horses, the chains about the silent necks of the dead their chains of freedom. Out on the common they are thrown until our man of the hut removes their shoes, then we lose sight of what follows.

At auction sales each week you may for five dollars, buy ten of these horses, not always first choice, and run the risk of seeing one-third or one-half "stretch their stiff limbs to rise no more," in traversing three or four miles, as you urge them before you with a carriage whip.

If you had a tender spot in your heart where sympathy found a resting-place, you could not look upon the sufferings at Oakland without a shudder. Of all the sights we saw in passing there, one, especially, rises vividly before us. It was a cold, snowy day, one of those which make our climate particularly disagreeable in March, and sometimes the first of April. We were driving to town. It was Saturday morning. Just as we reached the rise of ground in the road which was on a level with the high meadow land before alluded to, where the horses strayed from the Oakland swamp, near the fence running parallel with the road, lay a coal-black horse, a mere shadow, in the last death agony. Leaning above him was his exact counterpart. He looked almost human in his sorrow. We halted and watched the pair for a time. The two were doubtless fellows who had belonged to an artillery company. They had shared all the privations and sufferings of army life together; had each received a furlough at the same time had come to this bleak, cold meadow, the one to die, the other a sympathizing friend. The mourning sentinel made no move whilst we watched, save to bend his sorrowing head a little lower over his dying friend. The next day (Sunday), as we returned to the country, after morning service, we felt our interest in the two black horses increase as we neared the spot where we left them the day before. We did not wait long for answer to our mental questions, for side by side they lay; their great eyes open and glassy, the fast-falling snow weaving a white shroud over them, and heaping itself upon the frozen foam that wreathed their breathless nostrils. The death of one was the knell of the other. Who dare say there is not intelligent love and affection in the hearts of what we call the brutes of creation?—*Exchange.*

The Stinging Tree.

Though the tropical scrubs of Queensland are very luxuriant and beautiful, they are not without their dangerous drawbacks, for there is one plant growing in them that is really deadly in its effects, —that is to say, deadly in the same way that one would apply the term to fire; as, if a certain portion of one's body is burnt by the stinging tree, death would be the result. It would be as safe to pass through fires as to fall into one of these trees. They are found growing from two and three inches high to ten and fifteen feet; in the old ones the stem is whitish, and red berries usually grow on the top. It emits a peculiar smell, but is best known by its leaf, which is nearly round on the top, and is jagged all around, the edge like the nettle. All the leaves are large —some larger than a saucer.

"Sometimes" says a traveler, "while shooting turkeys in the scrubs, I have entirely forgotten the stinging tree till warned of its close proximity by its smell, and I have then found myself in a little forest of them. I was only stung once, and that was very lightly. Its effects are curious. It leaves no mark, but the pain is maddening, and for months afterward the part, when touched, is tender in rainy wheather, or when it gets wet in washing, etc. I have seen a man who treats ordinary pain lightly, roll on the ground in agony after being stung, and I have known a horse so completely mad after getting into a grove of the trees that he rushed open mouthed at every one who approached him, and had to be shot in the scrub. Dogs, when stung will rush about, whining piteously, biting pieces from the affected part." The small stinging trees, a few inches high, are as dangerous as any, being so hard to see, and seriously imperilling one's ankles. The scrub is usually found growing among palm trees.—*Scientific American.*

Music With Notes.

The following lines are from the "Rajpoot Wife," by Edwin Arnold. Their rythm bears a striking resemblance to the music of the lyre:

Sing something, Zymul Roa, for the goats are gathered now,
And no more water is to bring;
The village gates are set, and the night is gray as yet
God hath given wondrous fancies to thee. Sing!

Then Zymul's supple fingers, with a touch which doubts and lingers,
Sets athrill the saddest wire of all the six;
And the girls sit in a tangle, and hush the tingling bangle,
While the boys pile the flame with stores of sticks

Man's Physical Machinery.

The average weight of an adult man is 140 lbs. 6 oz.

The average weight of a skeleton is about 14 lbs.

Number of bones, 240.

The skeleton measures one inch less than the height of the living man.

The average weight of the brain of a man is 3½ lbs.; of a woman, 2 lbs. 1 oz.

The brain of a man exceeds twice that of any other animal.

The average height of an Englishman is 5 feet 9 in.; of a Frenchman, 5 feet 4 in., and of a Belgian, 5 feet 6½ in.

The average weight of an Englishman is 150 pounds, of a Frenchman, 136 pounds, and of a Belgian, 140 pounds.

The average number of teeth is 32.

A man breathes about 20 times in a minute, or 1,200 times in an hour.

A man breathes about 18 pints of air in a minute, or upward of 7 hogshead in a day.

A man gives off 4.08 per cent. carbonic gas of the air he respires; respires 10,666 cubic feet of carbonic acid gas in 24 hours; consumes 11,667 cubic feet of oxygen in 24 hours, equal to 125 cubic inches of common air.

A man annually contributes to vegetation 124 pounds of carbon.

The average of the pulse in infancy is 120 per minute; in manhood, eighty; at sixty years, sixty. The pulse of females is more frequent than that of males.

The weight of the circulating blood is about twenty-eight pounds.

The heart beats seventy-five times in a minute; sends nearly ten pounds of blood through the veins and arteries each beat; makes four beats while we breathe once.

Five hundred and forty pounds, or twenty-four hogsheads and four gallons, of 10,782½ pints pass through the heart in twenty-four ours.

One thousand ounces of blood pass through the kidneys in one hour.

One hundred and seventy-four million holes or cells are in the lungs, which cover a surface thirty times greater than the human body,

VARIETIES.

TWO BLUNDERERS IN A STREET CAR.—An amusing incident occurred on a street car the other day. A woman of fifty, made up to look about twenty-five years old, got aboard at a crossing to find every seat occupied. She stood for a moment, and then selecting a poorly-dressed man about 45 years of age, she observed:

"Are there no gentlemen on this car?"

"Indeed I dunno," he replied, as he looked up and down. "If there hain't, and you are going clear through, I'll hunt up one for you at the end of the line."

There was an embarrassing silence for a moment, and then a light broke in on him all of a sudden, and he arose and said:

"You can have this seat, madam. I am allus perfectly willing to stand up and give my seat to anybody older than myself.

That decided her. She gave him a look which he will not forget to his dying day, and grabbing the strap she refused to sit down, even when five seats had become vacant.

JOSH BILLINGS' WISDOM.—The man who gets bit twice by the same dog is better adapted for that kind of business than any other.

There is a great deal of religion in this world that is like a life preserver, only put on at the moment of immediate danger and then half the time put on hind side before.

Experience is a school where a man learns what a big fool he has been.

The man who doesn't believe in any hereafter has got a dreadfully mean opinion of himself and his chances.

There are two kinds of fools in this world —those who can't change their opinions and those who won't.

A good doctor is a gentleman to whom we pay $3 a visit for advising us to eat less and exercise more.

The world is filling up with educated fools —mankind read too much and learn too little.

Every man has his follies and oftentimes they are the most interesting things he has got.

CURTIS ANDREWS and his wife have lived together for sixty years in Caroline County, Md., and have never quarrelled. When asked for the secret of their domestic happiness, the old man replied: "Well, I have always noticed that there is more trouble between man and wife over making the fire in the morning than anything else. If they can get along smoothly about that, everything else is smooth. My wife and I went to housekeeping together in our log cabin nigh fifty years ago. We've only got one fireplace, but that's a big one. When we moved in I said to her, "Sally, I'll make the fire and I'll 'tend to it." I made that fire, and it's been burning ever since. For nigh fifty years I've covered that fire before going to bed, and I've fixed it up in the morning. I've never had any matches in the house, and there are never any sulphur smells in the household. While that fire burns, sir, there is peace in Curtis Andrews's home."

MARK TWAIN'S LAST BABY.—Mark Twain having been asked to contribute to the newspaper issued at the fair in aid of abused children in Boston, wrote: "Why should I want a 'Society for the Prevention of Cruelty to Children' to prosper, when I have a baby down stairs that kept me awake several hours last night with no pretext for it but a desire to make trouble? This occurs every night, and it imbitters me, because I see now how needless it was to put in the other burglar alarm, a costly and complicated contrivance, which cannot be depended upon, because it's always getting out of order and won't 'go;' whereas, though the baby is always getting out of order, too, it can nevertheless be depended on, for the reason that the more it gets out of order the more it does go. Yes, I am bitter against your society, for I think the idea of it is all wrong; but, if you will start a society for the Prevention of Cruelty to Fathers I will write you a whole book."

THE AFFECTIONATE SON.—It is all very well to be polite to ladies, but some people in this country carry it too far. There were several persons in a Galveston Avenue car, and one of them was smoking, which was allowed, as there were no ladies in the car. A rough-looking country customer, with an expression that reminded one of an Irish potato, scowled a time or so at the smoker, and finally said:

"You ain't got no right to smoke when there are ladies in the car."

"I don't see any ladies," replied the astonished smoker, looking around.

"Maybe not, but my mother was a woman, and you shan't smoke, while I am in the car, out of respect to her memory."

The smoker gazed at the homely features of the man with the mother, and then, throwing the cigar out of the window, said:

"Why didn't you tell me sooner your mother was a woman, if you knew it?"—*Galveston News.*

"I THINK I may be excused for a little show of pride in saying that I knew when to quit Wall Street," he observed, as an elevated train carried them over that great thoroughfare.

"So you used to speculate, eh?"

"Yes; I was on the street for seven years."

"Made your pile, I suppose?"

"Yes; I made and lost money the same as the rest. At one time I could draw my check for $93,000, and that isn't so bad for a man who went into Wall Street with only $40 in his pocket.

"And you knew when to quit?"

"Yes, sir."

"That was when—when—?'

"That was when I had enough left to pay my fare to Elmira and hire a boy to carry my satchel up to my father-in-law's house!" was the quiet reply.—*Wall Street (N. Y.) News.*

"SAY Mister," said a small boy to one of the assistants at the public library, recently, "I can't find the books I want to get in these here catalogue. I wish yer'd draw them for me." "What work do you wish to draw?" patiently inquired the official. "Well, have yer got 'Mulligan the Masher, or the Gory Galoot of the Galtees?'" The man shook his head. "Well, I'd like "Red Headed Ralph, the Ranger of the Roaring Rialto.'" "We don't keep any of that kind of trash, my boy." "Wot sort of a libery is this, anyway?" retorted the gamin. "Wy, it's just like everythin' else in this country—run for the rich, an' the poor workin'man gits no show at all."

A PREACHER is blessed with two sons, bright little fellows they are, too. It is the custom in that preacher's family for these two lads to recite every morning a verse of scripture. Recently, however, the boys have developed a love for coasting, and one morning were in great haste to get out on the hill when the father said: "Now, boys recite your verses; then you can coast." "I'd rather be a doorkeeper in the house of the Lord," repeated the older lad, "than dwell in the tents of the wicked." "So'd I," ejaculated the junior youth, and away he flew after his sled.

THE church was warm, the minister was dull, and everybody fell asleep except the half-witted man, James Fleming. "My brethern," shouted the indignant pastor, "you should take the example of that fool there; he keeps awake." "Ay, ay, minister," shouted Jamie; "but if I hadn't been a fool, I would have been asleep like the ithers."

Chaff.

The new year has already given us something for nothing. It is the figure one.

A German, lately married, says: "Id vas youst so easy as a needle could valk out mid a camel's eye as to get der behindt vord mit a vomans."

To enjoy fishing it is not necessary to catch fish. Just as big lies can be conjured up from nothing as can be based on a two-inch trout.

The hardest thing in the world for a young woman to do is to look unconcerned the first time she comes out in a handsome engagement ring.

A Sunday school boy was asked the other day if his father was a Christian. "Yes, sir," he replied, "but he don't work at it much."

A reporter who attend a banquet concluded his description with the candid statement that "it is not distinctly remembered by anybody present who made the last speech."

The greatest trouble about the fox-hunting clubs in New York is, first, to find a fox which wont run into some grocery store, and second, to convince farmers that a ride over a wheat-field helps the crop.

Emerson says a man ought to carry a pencil and note down the thoughts of a moment. Yes, and one short pencil, devoted exclusively to that use, would last some men about 12,000 years, and then have the original point on.

An Irish drummer who now and then indulged in a noggin of poteen was accosted by the reviewing general: "What makes your nose so red?" "Plaze yer honor," replied Pat, "I always blush when I spake to a gineral officer."

"You can't come and see my sister any more evenings," said a Riceville lad to his sister's beau the other day. "Why not?" inquired the anxious lover. "Because you come seven nights in the week now, and you can't come any more, without stretching the week."

The first day after a Leadville man, who had always been too poor to afford anything but whiskey straight, struck it rich, he went in for mixed drinks, and called for lemonade with a stick in it. And when he had his glass refilled, he said, "Mr. Bartender, put in the whole wood pile this time."

"Physical Geography."—English angler (on this side of the Tweed)—"Hi, Donald! come over and help me land him, a twenty pounder I'll swear——" Highlander (on the other)—"It wull tak' ye a lang time to lan' that fush too, d'ye ken, sir, whatever! Ye hae heuket the kingdom o' auld Scotland!"—*Punch.*

Tammas—"Guid mornin', Jeemes. I was glad to see your good wife stepoing about yestereen. Fegs, the new doctor mun be a clever chiel." Jeemes—"Clever! Jest look at that" (showing doctor's account). Tammas —"Guid sake! Four pound seven and saxpence for makin' your wife better? Man, ye could hae got a coffin for a pound."

"Isn't it awful cold?" queried Smith as he met Jones on the car the other day. "Terrible—terrible." "Any of your water-pipes freeze up?" Worse than that." "How?" "Had three barrels of potatoes frozen as hard as stones. I'll loose every one of them," "Oh, no you won't. Just head 'em up and send 'em to some charitable institution and no one will know but what they froze while *en route*. It's a golden opportunity you should not neglect."

The Household.

For the Household.

CHATS WITH MY NEIGHBORS.

NO. 4.

My "Other Side" papers seem "inclined to sport," as the florists say. For although one of my aims in writing them was to sow the seeds of discussion, still, the *a priori* of marriage was not what I expected them to develop. This, however, is the flower they show. I accept the situation. I also know as much about marriage as "the man in the moon." Consequently in the discussion I can only act as an occasional proxy for those of my intimates whose experiences in life are sufficient *pro hac vice.*

Fortunately for me, a prime edition of such experiences, bound not in "sheep" nor "calf," but in round, ripe years, has been staying with us by odd spells this winter, so I simply referred A. H. J.'s and Beatrix's handling of the matrimonial problem to her, and conceiving her ideas to be so much more practical and to the point than mine could possibly be, I give them substantially as I gathered them.

The kernel of A. H. J's reasoning lies in these words: "The girl who, before she allows herself to adore a man, calmly settles the question of his ability to keep her from want, is the one I admire."

This I took to Aunt Ruth, asking: "Isn't that about the right thing to say?"

"Well, my dear, I may not judge the honest opinion of another. But there certainly is a discord between that sentiment and my inception of the 'eternal fitness' in the adjustment of this question; since I should say: 'God pity the man whose wife's appreciation of and affection for him are gauged and bounded by his talent for money making!' and *vice versa*. I speak advisedly, for my acquaintance includes samples of both sorts. Miserable travesties on the sacred significancies of 'home' are the structures they build; he loveless places where they stay."

"Oh, I think it is perfectly awful for a woman to support her husband. But don't you, now, really think that a man ought to support his wife?"

"Not to an extent that excludes or ignores her prerogatives in womanhood. Man was the only division of the great Creation that proved deficient in capacity to execute the offices assigned him in the progressive development of that creation. To make up this deficiency, to round out, to make complete a physical, mental, moral and religious nature that the divine, creative law would hold accountable for its cherished purposes and its overt acts, woman, a helpmeet, that is, fit and proper, just the required quantity and power, no more and no less, was created. And these twain in the sum of their individual endowments, make up the full stature of such an accountable human intelligence; and when either says: 'My husband or my wife must keep me above want, that moment he or she also says: 'I intend to shirk a pre-ordained duty, and to be not a help, but a hinderance, a clog, a dead weight on the hands of the one who may be foolish enough to take me for better or for worse.'"

To some of these points I took exceptions, but was so thoroughly worsted that when one of the boys exclaimed from behind the "last FARMER": "Hallo! Beatrix is pitching into you in a most lovely way," and I had so far taken in the facts as to know that her forces, artillery and ammunition were drawn from Love's army and arsenals, I really felt quite helpless; for I also know as much about Love's tactics as "the man in the moon." And so, you see, the most and the least that I could do again, was to call on Aunt Ruth's reserves.

She carefully read Beatrix's "Early or Late," and then smilingly said:

"Yes; 'tis love that makes the world go round. Domestic homes are the centrics of that moving power's centrifugals; consequently one of these homes reared on other foundations than this selfsame heaven-born affection is very soon manifestly defective."

"But what about early marriages being such a prolific source of divorce suits?"

"As to that, I have no authentic statistics. That the gross number of such divorces is greatly in excess of those from marriages late, or later in life, is self-evident, from the fact that the number of early marriages contracted, is a manifold multiple of late ones; but within my personal knowledge and observation the percentage of divorces in either class is not sufficiently in excess of such percentage in the other, to warrant the assumption that Early or Late is the cause of disaster."

"What, then, in your opinion, is the cause of the present alarming divorce rate?"

"That 'cause' is a long list of causes, including all incentives to marriage into which this 'heaven-born, sincere, undying affection' does not enter as a prime factor."

"But, is not this the pivotal point in Beatrix's argument, viz: 'With added years comes better knowledge of the requirements of one's own nature, a keener insight into human nature, bringing with it the power of judging whether within another will be found those qualities which will command our respect, our admiration, and most essential of all, our love," said I, and I knew that Aunt Ruth's spirit, through a chain of golden memories, ran back to the period of her own early marriage as she answered:

"The principle involved is as indispensable to the establishment of a happy marriage, as are sunlight and heat to the growth of healthy plants. Its successful application, however, cannot be arbitrarily assigned to ripe years. And this carries us back to a point in our talk the other day on A. H. J.'s theory of marriage, and from which this answer evolves itself—*i.e.*, when a masculine and a feminine nature, antipodal in deficiencies, and in endowments to the extent of those deficiencies, and at the same time possessed of many mutual attributes and aspirations, meet reciprocally, the even balance of the perfected unit is recognized, as the subtile force that we call love throws its strong currents through and around those lives, that are indeed, one life, till these currents become as strong cords, nay, more, arteries, through which the finest essences of the unified life's blood flows. Youth, age and middle life alike succeed or fail in their attempts to strike this happy, perfect balance; and herein lies the grand secret of matrimonial bliss or ban."

"This makes me think of Jane Eyre, when that intensely human man, Rochester, in a fit of jealous rage ordered her to leave him. She made no move to go, and he soon asked her why she stayed. 'Sir,' said she, 'you suit me to the finest fibre of my being.' According to your theory, that's about what it must be in practice."

"To insure happiness, exactly what it must be."

E. L. NYE.

For the Household.

"BOARDING ROUND."

While the subject of district schools is under consideration in the FARMER, I wish to call attention to a practice which prevails in many localities, and which ought to be done away, as a relic of the "good old days" for which modern civilization has no use. I allude to the "boarding round," by which a teacher is compelled to make the tour of the district, staying a week or two at each house, and then moving on, like a peregrinating tramp, seeking food and shelter in a new place. Such a custom may have been necessary when the country was new, and coin a scarce commodity, but there is no excuse for its survival till this day and generation. It is far better to raise the necessary amount required to provide teachers a good home near the school-house than to subject them to the many annoyances consequent upon "boarding round." It is better economy, for better work will be done by one who is comfortably lodged and fed than by another who is vexed by the innumerable trials which fall to the lot of those who wander up and down the face of the earth, seeking a temporary abiding place; and many good instructors absolutely refuse to take a situation under these conditions. The increased numbers and prosperous condition of our farmers certainly enable them to offer a boarding place to the teacher, where she can have a room to herself and keep her belongings in proper order.

The disadvantages of compelling a teacher to wander about the district, like an uneasy ghost, are so numerous that they ought not to need enumeration. In many localities the houses at which she is expected to board are a mile or more from the school-house. In the hottest days of summer she must walk this distance, and in the inclement weather of winter, toil along a snowy road, often imperfectly broken, through rain and snow, to arrive, tired out, at her temporary home, there to sit in her damp garments till the family fire thaws her out. A good natured, thoughtful man makes it his business to "hitch up" and take his children and the teacher to and from school when the walking is bad or the skies unpropitious, but the consideration or benevolence of a good many don't lead them to take their horses from a comfortable stable in inclement weather.

I have a vivid remembrance of a certain teacher who started out one morning for a little promenade of a mile and a half when the heavens were opened and the rain descending as if Jupiter Pluvius and Neptune had gone into partnership, attended by four or five satelites in "storm costume," while four men and boys "too big to go to school in summer," lounged by the kitchen fire, and a half dozen horses were placidly champing oats in the barn. I'll venture that a madder nor a wetter woman never crossed the threshold of a school room. In nearly every district there are families who are not in circumstances to make a teacher comfortable, but whose children, attending the school, render it necessary that they should receive their due share of her company. I know a young lady who sat all night in a rocking-chair with her shawl wrapped round her, because the bed in which she was expected to sleep was so full of vermin that she dared not lie down; and another who, unable to eat the fried pork swimming in grease, and the sour bread which graced the family table three times a day in July and August, provided herself with a paper of crackers and managed to subsist by munching them at intervals. I know that these are exceptional cases, and that by far the greater majority of farmers' houses are pleasant, neat, and their tables abundantly supplied, but even were all thus pleasantly situated, there are few teachers who are earnest in their work, who do not wish to look over the lessons for the coming day, if their schools are at all advanced, and this, instead of being considered as it often is, a sign of incompetency, should be set down to her credit. To do this profitably, she needs a room in which she can avoid the noise and confusion of the family sitting room.

There are few teachers whose constitutions are strong enough to endure the task of airing the best bed-rooms of an entire district during the winter, and sleeping in the sheets which were put on the bed at the fall cleaning, and have been gathering dampness ever since. There are fewer yet who do not wish that child at the antipodes (to speak mildly) who sets up a howl to "sleep with the school ma-am;" and she who with a vision of a sleepless night before her, politely assents to doting mother's proposal to grant the child's wish, emulates St. Lawrence on his gridiron.

BRUNEFILLE.

DANGER AHEAD (?)

To the Editor of the Michigan Farmer.

DEAR SIR—I have read the FARMER for many years, but have never written to it before, and to-day I take my pen in hand because I have just read a piece by "Beatrix." I can see by the way she writes that she is a woman, and not only that, but one of the most dangerous kind.

There seems to be a certain class of women who are inclined to be independent. This feeling started in cities, and I see it has spread into the country. I tell you, Mr. Editor, that we who are men have got to keep it down; if we don't, it will make us trouble. In last week's paper you discuss the question of a wife's rights on the farm. This is a question which ought not to be touched. The old state of affairs where the man has all the control of things is the right one. He makes the money and ought to have it. I don't believe that any woman has got a head for business, or could manage things if she had the chance. If her husband gives her a home and clothes, and saves her from living the life of an old maid, what more can a woman ask?

If these new ideas go much further they will make a great change for the worse in many families—especially among us farmers. Now, Mr. Editor, I am very sorry to see that you lend them your columns.

Respectfully yours,

J. GRADGRINDE.

SANDY HILL, Jan. 14, 1881.

[The above was not written for publication, but as it represents a large class of "modern thinkers," we give it to our readers—after having obtained permission of the writer.—ED. FARMER.]

Useful Recipes.

TO FRY EGGS.—Put the butter or gravy in a frying-pan and break the eggs in when it is hot, salt and pepper and cover them up. Eggs cooked in this way taste as if they had been boiled first and fried afterward, and are said to be "simply delicious."

BAKED BEANS.—Many persons who are fond of baked beans, will welcome a recipe for cooking them without pork. An exchange says: Cook in the usual way until well done, and season with salt and pepper to taste; add a cup of sweet cream, and bake slowly one hour. Delicious.

SNAPS.—Take 1 cup of molasses, ¾ of a cup of sugar, 1 tablespoonful of ginger, and a teaspoon each of powdered cloves, cinnamon, and allspice. Add these to ½ cup of melted butter and beat in two teaspoons soda, and flour enough to roll. Roll very thin, cut out with a tin cutter and bake in pans in a hot oven.

A NICE DESSERT.—Steam one cupful of rice in new milk until tender, sweeten with white sugar and heap on a dish; lay over it small slices of jelly, or any preserved fruit, beat the whites of eggs to a froth with a little white sugar, flavor with vanilla; add one tablespoonful of rich sweet cream and lay over the the rice with a spoon, giving the form of a rock of snow. It is both ornamental and delicious.

JUICY CORNED BEEF.—Always put corned beef back to keep until the next day in the liquor it was boiled in. Instead of the hard, brown, woody substance that is sometimes served as cold corned beef, kept in this way it will always be juicy, as it re-absorbs much of the richness of the liquor itself. Skim the liquor of course before setting it away, and it will keep as well in the pot it was boiled in as anything else. The tender part of the rump makes the best selection for salting.

Veterinary Department

Conducted by Prof. Robert Jennings, late of Philadelphia, Pa., author of "The Horse and its Diseases," "Cattle and their Diseases," "Sheep, Swine and Poultry," Horse Training Made Easy," etc. Professional advice through the columns of this journal to regular subscribers free. Parties desiring information will be required to send their full name and address to the office of the FARMER. No questions will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given the symptoms should be accurately described, how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. Private address, 201 First Street Detroit.

Laryngitis Maligna, or Putrid Sore Throat.

Veterinary Editor of the Farmer.

I had a horse d'e from a disease that we do not understand; it is the third that I have had die within a few weeks of the same cause. The one that I speak of was 13 years old and of a cream color. Was taken with what seemed to be sore throat with a slight cough and discharge at the nose; would try to eat and drink but could not swallow; the food would drop from his mouth after being masticated; the breath and discharge from the nostrils smelled very bad. About two days before he died his eyes turned white, and matter ran from them; he was blind during that time; he did not lay down from the time he was taken sick until about 24 hours before he died, then could not be got up again; he was sick seven days; the others were handled about the same. They all died in the same stall, which is a double one. The horse that stood with them is all right as yet, he being all that I have left, and have moved him to another stable. Please tell me what it was that ailed my horse; the remedy; if it is contagious; and how I can disinfect my stable, and oblige,

A SUBSCRIBER.

Answer.—The symptoms as above stated are not sufficient to enable us to make a satisfactory diagnosis of the disease. The appearance of the membranes lining the nose, mouth and eye-lids; condition of the pulse: whether or no there was swelling of the throat, loss of flesh, tucked up belly, and to what extent the respiration was disturbed, and how the animal appeared when moved. These are symptoms which would have aided us in deciding the true nature of the disease, and without which we can only guess at it. In the absence of such symptoms we would say the disease looks very much like putrid sore throat, a disease of rare occurence, highly contagious, and unless taken in the early stage difficult to cure. A post mortem examination properly described would have answered our purpose very well. In case any more such should occur in your neighborhood, we give you the symptoms as we have observed them in that disease, the post mortem appearances after death, together with the treatment most successful in its cure. Symptoms. The early or premonitory symptoms usually are overlooked. The animal is dull and moves sluggishly, sweating too freely when doing ordinary work. To these succeed a peculiar stiff motion of the animal; membrane lining the nostrils of a pale or leaden color, those of the mouth and eye-lids paler than usual; eyes watery, with a peculiar haggard expression. There is at first a slow motion of the jaws in eating; fluids swallowed with difficulty; pulse nearly natural when standing at rest, but becomes intermittent on slight motion; the tail loses its natural power and is turned on the back with little resistance; as the disease advances copious discharges of a fetid character flow from the nostrils; cough is usually present; the animal loses the power to swallow food or water; the respiration becomes labored; there is little or no swelling of the throat; the belly is tucked up; breath offensive; the animal becoming very weak, goes down from the fourth to the ninth day, but seldom ever rises again. The blindnes and change of color in the eyes, as in yo.r case, we have never met with. That condition, however, would not change our opinion, as the disease is due to paralysis of the nerves of deglutition and digestion, effusion within the skull usually being present in these cases, as well as in the cavity of the ches'. Post mortem appe.rances: The larynx, trachea and bronchial tubes (air passages) ulcerated and gangrenous; chest filled with serous fluid, usually of a yellow color, but in some cases, from the rapid decomposition, of a dirty brown color; serous fluid sometimes in considerable quantity within the skull, with softening of the medulla oblongatta (upper portion of the spinal cord) the pleura pulmonalis and costalis also presenting the same gangrenous appearance. The abdominal viscera presenting a healthy aappearance. Variations from the above conditions occur in different animals, according to the intensity of the disease and the length of time sick. The appearance of fluid in the cavity of the chest is not sufficient in the absence of gangrene to determine the case, as effusion occurs in chronic pleurisy, etc. Treatment. Apply to the throat from ear to ear the following ointment well rubbed in: Bin. iodide of mercury, four drachms; lard, four ounces; mix well together, and apply once only; after it has blistered well, dress with lard. Give internally in half a pint of warm water every six hours, the following: Gum camphor pulv., 1 drachm; capsicum pulv., 3 drachms. When the animal has sufficiently recovered from the effects of the disease so as to eat a little food, give good oats, and half drachm doses of nux vomica pulv. morning and night in the feed or on the tongue; this is the best tonic which can be given in such cases, if not commenced before the animal has sufficiently recovered to bear it. The cause of this disease is supposed to exist in some local miasm. The removal of sick animals very much favor their recovery. Your stable should be thoroughly whitewashed, well ventilated, and carbolic acid used freely as a disinfectant.

Nervous Prostration or Loss of Muscular Power.

EATON RAPIDS, Mich., Jan. 16th, 1881.

Veterinary Editor of the Michigan Farmer.

DEAR SIR:—I have a five year old dark bay or brown gelding of a nervous temperament that is acting peculiar, and I would like to be informed through the FARMER what ails him and also the remedy. The first I saw wrong about him was four weeks ago when I drove him a few miles. He did not drive as free as usual and carried his hind parts around to one side a little; I supposed he had strained his back a little or his kidneys were out of order and treated him accordingly by giving him 2 or 3 ordinary doses of saltpeter and 2 oz of sweet spirits of nitre in 2 doses, at the same time giving him ordinary condition powders and bathing his loins with vinegar and wormwood. He got no better, but rather worse, and seemed to be affected in his forward parts as bad or worse than his hind parts, so that he would stagger and sometimes fall down, but get up as quick and easy as ever. Tried bleeding in the mouth but with poor success as his blood appeared thick and would not run much. When standing quiet he has a slight swaying motion from side to side of his forward parts, especially his head which he cannot entirely control when he puts it in the pail to drink. In about ten days after first attack I employed a gentleman who called himself a veternary surgeon to treat him, and he advised bathing the loins with alcohol and fomenting with hot water, which I did for 36 hours. He also prescribed an internal remedy, but what it was I don't know, except that he said it was stimulating. I can discover nothing peculiar about his urine except for 3 or 4 days it smelled very strong which I thought probably was the effect of the medicine. All the time he has eaten well and appeared to feel well, with no pain or soreness. His bowels are regular but his pulse is weaker than his mate's. He will trot or gallop around the yard nearly as well as ever, but in stopping or turning short he appears to be dizzy and staggers.

J. D. WILCOX.

Answer.—If we understand the nature of the disease in your horse, from the symp- given it is the same character as that of Mr. H. F. Satters' horse reported in our last number, and would advise the same course of treatment.

Worms.

GRAND RAPIDS, Mich., Jan. 16th, 1881.

Veterinary Editor of the Michigan Farmer.

DEAR SIR:—Seeing so many questions asked by subscribers and being one myself I would like to ask a few also. I have a five year old colt that I work and he is troubled badly with pin worms. I have fed tobacco and salt, and a little wood ashes, but without much effect. Please inform me what to give to rid him of them. I fed oats and corn and have given him bran mashes frequently. One more question: I have an eight year old horse that is troubled very bad in making water. He seems to be in pain when it passes; he is swelled under the belly a little, and his sheath is also swelled some. He is not foul. Across the kidneys he is a little sore, but not enough to cause inflammation. The water is thick and of a yellow milkish cast. He is is very costive and strains hard. He puffs a good deal, but is not bloated; he eats well and drinks well. I have given niter and buchu and it helped his water, but he still keeps sore and swelled. I have fed him bran mash ever since he has been sick, and took the chill off the water. He may be hide bound. What ails him, and what will I give him? Answer as soon as convenient, and oblige a subscriber.

J. BARRETT.

P. S.—What is the best treatment for the scratches.

J. B.

Answer.—Various modes of treatment have from time to time been resorted to with but little benefit. The remedies most to be relied upon as authelmintics are tartar emetic, calomel, areca-nut, turpentine, Indian pink, arsenic, sulphate of iron, and strychnia. The latter being the most effective though dangerous agent, we never prescribe unless prepared by ourselves, which when used according to directions is safe and reliable, sent by mail post paid on receipt of $1. Or give the following: Calomel, 3 drachms; tartar emetic, 1 drachm; mix and divide into three powders, one to be given for three successive nights, and followed with the following powders: Socotrine aloes, 2 ounces; Jamaica ginger pulverised, 1 ounce; mix and divide into ten powders, one to be given night and morning. Regarding your eight year old horse, give him two drachm doses of hydrochloric acids, in a pail of water morning and night, and give the following powders three times a day in his feed or upon his tongue: Socotrine aloes pulverized two ounces, nitrate of potash pulverized two ounces; Jamaica ginger pulverized one ounce; mix and divide into sixteen powders. For scratches use one ounce of colodion, and two ounce of castor oil mixed together; apply when the parts are dry, once a day.

Myosites.

WAYNE, Wayne Co., Mich., Jan. 14, 1881.

Veterinary Editor Michigan Farmer.

DEAR SIR.—A week ago I drove to Detroit and back the same day, and did not notice anything wrong with my team that night when I put them up. Next morning, when I went out to the stable, one of my horses (a long limbed, long bodied animal,) seemed to be suffering in his left hind leg; there was no swelling, but you could see the cords on the inner side of the leg from the sheath down, about 8 inches, were very sore, but not swollen much. I drove him a little, and he seemed to get all over it; but an hour after putting him up he was as bad as ever, but there was no pain unless you touched it. I then applied rubbing, which caused it to swell very large. In a day or two the swelling left the upper portion of his leg, descending to his hock joint where it remains. Gentle exercise has no effect in reducing the swelling. He does not limp any in travelling, but is a little stiff in handling it. Is it best to let time take its course, or is there anything that will help it?

Yours,

J. DAVIDSON.

Answer.—Yours of the 14th inst. received too late for our last issue, hence the delay. The symptoms you have given though unnecessarily brief, would indicate some local injury to the muscles or surrounding tissues of the part involved. Pain and swelling, attended by increased temperature of the parts involved, indicate acute inflammation in the part. And as the animal is not lame, that inflammation is superficial to the joint proper. Hot fomentations in such cases when applied early is all the treatment required; but, as some days have elapsed, it will be well to apply a stimulating liniment; the following will be found useful in such cases: Spirits of turpentine and tincture of opium, of each 8 ounces; gum camphor pulverized, 1 oz; mix all together; use with gentle friction twice a day.

Blind Mares for Breeding.

Mr. S. Toms' mare, Clara P., of Fort Wayne, Indiana, gave birth to a filly which is totally blind. The eye balls are entirely lacking. I saw the filly a few hours after foaling, and again yester day. The filly is lively, growing finely, and seems to get around in spite of its defect. The dam was originally gifted with seemingly good eyes up to the time she was five years old, when she commenced to have trouble with her eyes, which eventually resulted in her going blind. Clara P. is by Anthony Wayne, her dam a blind mare, quite a trotter, called Crazy Jane. Clara P.'s filly is a catch foal, the sire supposed to be a young bay stallion by Anthony Wayne, owned by Mr. Oliver Hanna. This seems to prove the unwisdom of using blind mares for breeding purposes.—*Spirit of the Times.*

Transportation of Catte From the East to the West.

The extent to which cattle are transported from the east to dairy districts in the west, is hardly realized. Nearly fifty thousand calves, for instance, were sent to Chicago alone in the last half of 1880. There is no surety that some of these cattle have not pleuro-pneumonia, and the danger of their conveying the disease to western herds is imminent and alarming. It is announced officially that Chicago is already among the diseased centres, though this is (very wisely) qualified. But if pleuro-pneumonia has not gotten west, it inevitably will do so unless Congress arouses itself to some action.—*Journal of Comparatice Medicine and Surgery.*

Milk Sickness or Trembles.

A cow affected with milk sickness will communicate the disease through her milk to her calf; the calf dying, will give the disease to hogs eating the dead calf; dogs eating dead hogs will die of the disease. It is a disease that reproduces the cause in the animals affected. This would be rather against the theory of mineral poison. Impure drinking water may cause it.—*Cor. Philadelphia Medical and Surgical Reporter.*

CITY ITEMS.

OUR police force have been furnished with new hats, of the helmet style.

WM. MOORE, who has kept a livery stable in Detroit for 40 years, died at his residence 82 Larned street East Saturday morning, of paralysis.

THE Hon. Geo. R. Wendling lectures on Thursday evening next in Music Hall, on "Ingersollism from a Secular Standpoint." This is the fifth entertainment in Mr. C. S. Hathaway's musical and literary course.

CAPT. GEO. W. CHILSON of the 8th U. S. cavalry stationed at Fort Duncan, Texas, committed suicide on the 18th inst. Capt. Chilson served three years during the war, in the 24th Michigan regiment, and at the close was made a 1st Lieut. in the 14th U. S. infantry. He was afterwards transferred to the 8th cavalry and promoted to a captaincy. He had many friends in this state who will be grieved to hear of his death.

MR. ARCHIBALD FORBES, the celebrated war correspondent of the London (Eng.) *News*, lectured in Music Hall Thursday last. His subject was "Kings I have Met." The audience was a large one, and the lecture very interesting. Mr. Forbes' descriptive powers are of a high order, and the portraits he drew of the various kings and potentates he had met, from the Emperor of Germany to the King of Burmah, proved highly interesting and instructive.

THE coroner's jury in the inquest on the bodies of the men killed by the explosion at the Union mills, have returned a verdict, censuring the manager and engineer, and charging them with gross negligence. They also recommend the passage of an ordinance requiring the inspection of all boilers in use in the city at least once a year, and that each man before being put in charge of a steam engine be required to pass an examination as to his competency. If this ordinance is passed, several cheap engineers that we know of, will have to seek other occupations.

THE sleighing in Detroit is very fine and the horsemen are taking full benefit of it. Lafayette Avenue during the afternoons presents a lively appearance, there being at times as many as 500 sleighs on it of all styles, from the elegant turn out of the millionaire to the dilapidated establishment of the swill gatherer. The livery stables are taxed to their utmost capacity, and so are the pockets of the poor fellows, who have but a small salary, and a girl who insists on being taken for a ride on the avenue. Single rigs for an afternoon are now quoted at $10 to $12, with a demand in excess of the supply.

Answer This.

Did you ever know any person to be ill, without inaction of the stomach, liver or kidneys, or did you ever know one who was well when either was obstructive or inactive; and did you ever know or hear of any case of the kind that Hop Bitters would not cure? Ask your neighbor this same question.—*Times.*

Four times a year the United States government pays Wm. H. Vanderbilt 476,000 in cash as interest on bonds.

It will pay every one outside of the city to visit us during our sale, no matter how small a purchase you wish to make, as we are bound to move the goods if prices will do it.—C. R. MABLEY.

TAKE Ayer's Cherry Pectoral to stop your Colds, Coughs and Bronchial Affections before they run into Consumption that you can not stop.

PARENTS will find A. S. T. Co. Black Tip not objectionable like the metal, while it will wear as well. By asking for it in their children's shoes they can reduce shoe bills one half.

It Acts Sure and Safe.

The celebrated remedy Kidney-Wort can now be obtained in the usual dry vegetable form, or in liquid form. It is put up in the latter way for the special convenience of those who cannot readily prepare it. It will be found very concentrated and will act with equal efficiency in either case. See adv.

CANVASSERS make from $25 to $50 per week selling goods for E. G. RIDEOUT & Co., 10 Barclay St., New York. Send for catalogue and terms. au18-1y

COMMERCIAL.

DETROIT WHOLESALE MARKET.

TUESDAY, Jan. 25, 1881.

Flour.—Receipts for the week 6,538 bbls; shipments 1,495 bbls. There is no change to note in the market for flour. It is quiet, with a rather weak feeling in sympathy with wheat. Stocks are light, and millers are working very cautiously. Quotations yesterday were:

Fancy white (city mills)	$ @ 5 00
Choice white wheat (country)	4 65@ 4 85
Seconds	4 00@ 4 25
Minnesota spring	5 50@ 6 00
Minnesota patents	7 00@ 8 00
Low grades to superfine	3 25@ 3 75
Rye	@ 5 00

Wheat.—The receipts of wheat for the week have been 111,173 bu., against 119,982 bu. the previous week. Shipments 19,727 bu. This week the market has opened tame, with unfavorable reports from all points. Prices consequently dropped yesterday 1¢, with a weak feeling. As the day advanced, and Chicago reported a drop of 2c per bu., another 1½c was lost. At the close, however, there was a better feeling, Chicago having regained 1c, and prices here recovered partially from the decline. No. 1white closed at $1 0.3/4, No. 2 at 97c, and No. 2 red at $1 03¾. February wheat sold at $1 02, March, at $1 01, April, at $1 05¾, and May at $1 06¾. Cash sales were 7 carloads No. 1 white and one car No. 2 red.

Corn.—Is scarce and inquiries for supplies were not answered yesterday; 43@43½c was bid for regular, but none secured. One carload to arrive sold at 42½c.

Oats.—Offerings are light and not sufficient to satisfy the wants of the trade. No 1 mixed are wanted at 39½ and No 2 white at 40c; No 2 mixed, 38@38½c.

Barley—Desirable samples find a pretty good market at current rates. Sales yesterday included 5 carloads of Canada barley, to arrive, at $2 48; 1 carload of State at $1 47; 1 do at $1 50 and 1 do at $1 65.

Rye.—None is offered; desirable samples could be sold at about 70@75c.

Buckwheat—Is dull; bagged lots could be placed at about 50c per bu.

Eggs.—Strictly fresh eggs are very scarce and are selling for 28@30c; good limed or pickled stock command 23@24c. The high price is checking the demand.

Onions.—Holders are very firm at $4 00 per bbl for fine yellow stock, and $1 50 per bu.

Cranberries.—Cape Cod fruit commands $8@9 per bbl., or $3 per bushel box.

Dried Fruits.—Quiet; dealers name 3¾@4c as best terms for invoices, while small lots are taken at 4⅛@4¼c per lb. Evaporated fruit commands 8c. Peaches sell at 15@18c per lb.

Buckwheat Flour.—Held at $4 50@4 75 per bbl. for State by the trade. Large lots could not be placed at more than $4.

Corn Meal.—Fresh ground stock, $19@20, with a quiet market.

Feed.—Receipts for the week, 102 tons; shipments 89 tons. Bran quoted at $13 25; coarse middlings, $13 75; fine feed $14@14 50; corn meal $19@20; corn and oats $20.

Butter.—The receipts of butter the past week were 40,336 lbs and the shipments were 31,090 lbs. Yesterday the market was dull. Retailers made very limited demands, while no stock was taken for shipment. Fine invoices are offered at 19@20c, only top selections commanding outside figures. Medium and low grades attract no attention.

Cheese—The market is steady and more active at 13@13½c, with a light demand.

Beans.—Quite dull; city hand-picked $1 60, @1 65 with large stock; unpicked are in full supply at 75c@$1 00.

Honey—Market dull, with hardly any demand. Choice comb is freely offered at 15@16c, and strained at 12½c.

Hops.—Receipts are light and the market quiet. Buyers report 15@30c as the usual range of prices.

Apples.—Receipts for the week 1,642 bbls, and shipments 1,774 bbls. Business very light. Prices are $1 25@1 75 per bbl, with only small lots of choice commanding outside figures.

Potatoes.—Market very quiet; trade lots in sacks command 55@60c per bu, but car-load lots could not be placed at over 50c.

Clover Seed.—The market is more favorable. Prime seed could be placed at $5, and No 2 at $4 70. The demand has improved.

Poultry.—Dressed turkeys are in better demand, and sell at 10@12c per lb.; chickens are steady at 9@10c.

Dressed Hogs.—Prices are higher, and $6 is now an inside term for desirable stock; a few small lots have been placed at that rate; heavy weights would command $6 10@6 15.

Provisions.—Market quite active, with prices strong. The advance in hogs, both live and dressed, has compelled packers to ask higher prices for their product. Lard is very firm, and shows a tendency toward higher figures. Prices yesterday were as follows:

Mess, new	@13 75
Family mess new	@13 75
Clear mess	15 25 @15 50
Lard in tierces, per lb	8½@ 9
Lard in kegs, per lb	9¼@ 9½
Hams, per lb	9½@ 10
Shoulders, per lb	6 @ 6¼
Choice bacon, per lb	@ 9½
Extra Mess beef, per bbl	9 50 @10 00
Mess beef, per bbl	9 00 @ 9 50
Tallow, per lb	5½@
Dried beef, per lb	10½@ 11

Hay.—The following is a record of the sales a the Michigan avenue scales during the past week:

Monday—17 loads: four at $17; three at $18, $16 and $15; one at $15 50, $14 50, $14 and $13 50.

Tuesday—21 loads: six at $16; four at $17; three at $18 and $14; two at $15; one at $17 50, $16 50 and $13.

Wednesday—30 loads: six at $18 and $16; four at $16 50 and $14; three at $17 and $15; one at $17 50, $17 25, $14 50 and $13

Thursday—27 loads: six at $17; five at $16 and $15; four at $18; two at $15 50 and $15; one at $17 50, $16 50 and $14 50.

Friday—7 loads: two at $17, $16 and $15; one at $13.

Saturday—15 loads: three at $16 50 and $15; two at $18, $17 50 and $17; one at $16, $15 50 and $12.

LIVE STOCK MARKETS.

At the Michigan Central Yards.

Saturday, January 22, 1881.

CATTLE.

The following were the receipts at these yards:

	Cattle, No.	Sheep No.	Hogs No.
Ann Arbor	15	570	...
Albion	...	165	...
Battle Creek	13	...	22
Chelsea	...	149	...
Cassopolis	17	...	...
Charlotte	15	26	...
Clyde	14	215	...
Dexter	29	247	9
D., G. H. & M. R. R.	...	177	...
Eagle	17	...	...
Fowlerville	25	87	...
Grass Lake	...	983	...
Grand Blanc	21	...	...
Highland	...	188	35
Howell	...	231	10
Marshall	...	153	42
Milford	23	...	...
Mason	22	...	...
Metamora	24	...	...
Oxford	21	99	...
Plymouth	9	223	21
Rochester	40	100	...
South Lyon	9	35	...
Union City	16	...	29
Wixom	...	144	...
Williamston	14	120	...
Ypsilanti	16	103	89
Drove in	107	240	...
Total	477	4,255	257

The offerings of cattle at these yards numbered 477 head, against 520 head last week. The offerings taken as a whole, were the best we have had in several months, being largely made up of good shipping stock and the better grades of butch ers' cattle. The market was active and while shippers paid good prices they claimed that the stock was bringing less money than last week, being of better quality for the same money. Butchers' cattle were also active and quite a difference of opinion prevailed as to the range of the market; sellers claimed a decline, if anything, from the rates of last week, while buyers generally expressed the opinion that their stock was costing them more money. From our own observations, we think that strong last week's prices were paid.

QUOTATIONS.

Good to choice shipping steers	$4 25 @5 00
Fair shipping steers	3 75 @4 00
Good to choice butchers's steers	3 50 @4 50
Fair butchers' steers	3 00 @3 30
Fair to good mixed butchers' stock	3 00 @3 75
Coarse mixed butchers' stock	2 60 @2 80
Bulls	2 00 @3 00
Stockers	2 50 @3 00
Feeders	3 25 @3 75

Lee sold Duff & Caplis a mixed lot of 9 head of fair butchers' stock, av 1,010 lbs, at $3.

G D Spencer sold Drake 7 fair shipping steers, av 1 070 lbs, at $4 05.

Devine sold Burt Spencer 8 choice shipping steers av 1,300 lbs, at $5 25.

Richmond sold Wm Wreford & Co 2 good butchers' cows, av 1,200 lbs, $3 75.

Hall sold Drake 20 choice shipping steers, av 1,294 lbs, at $4 62½, and a fair one weighing 1,400 lbs, at $4.

Giddings sold Duff & Regan 3 thin butchers' cows av 1,083 lbs, at $2 80.

Devine sold Wm Smith an extra butchers' heifer, weighing 1,230 lbs, at $5 25, and a good cow weighing 1,270 lbs, at $4.

Richmond sold Drake 4 fair shipping steers, av 1,067 lbs, at $3 60.

Lincoln sold Duff & Caplis a mixed lot of 5 head of fair butchers' stock, av 880 lbs, at $3 25.

Hyman sold Drake 2 good oxen, av 1,770 lbs, at $4 40.

Bordoin sold Roe & Phillips 6 stockers, av 680 lbs, at $3.

Giddings sold Duff & Caplis a mixed lot of 5 head of fair butchers' stock, av 788 lbs, at $3 30.

Lewis sold Drake 2 fair oxen, av 1,590 lbs, at $3 75

Adams sold Roe & Phillips 3 stockers, av 686 lbs, at $3 50.

Hagerman sold Burt Spencer 4 good shipping steers, av 1,215 lbs, at $4 10.

Roe & Phillips sold Bishop 4 good shipping steers, av 1,067 lbs, at $4 25.

Adams sold Drake 4 fair oxen, av 1 625 lbs, at $3 60.

Roe & Phillips sold Henry a good bull and an ox av 1,560 lbs, at $3 75.

Rice sold Roe & Phillips 4 fair butchers' steers, av 780 lbs, at $3 12½.

Nott sold Wm Wreford & Co a mixed lot of 17 head of good butchers' stock, av 925 lbs, at $3 40.

Van Tuyl sold Wm Wreford & Co a mixed lot of 20 head of fair butchers' stock, av 846 lbs. at $3 20, and 2 bulls, av 800 lbs, at $2 50.

Patton sold Wm Wreford & Co a mixed lot of 7 head of thin butchers' stock, av 967 lbs, at $3 60

Lincoln sold Drake 9 fair oken, av 1,550 lbs. $3 60.

Sutton sold Burt Spencer 2 extra oxen, av 2,115 lbs, at $5 50.

Lewis sold Duff & Caplis a mixed lot of 8 head of fair butchers' stock, av 944 lbs, at $2 90.

Hyman sold Wm Wreford & Co a mixed lot of 10 head of fair butchers' stock, av 876 lbs, at $3 10.

Adams sold Burt Spencer 5 fair shipping steers, av 1,320 lbs, at $3 80, an extra ox, weighing 2,080 lbs, at $5 50, and a mixed lot of 4 head of fair butchers' stock to McIntire, av 955 lbs, at $3 10.

Sutton sold Drake 3 choice shipping steers, av 1,350 lbs, at $4 75, 5 good oxen, av 1,650 lbs, at $4, and a coarse one weighing 1,890 lbs, at $3 50.

Rathbun sold Drake 4 choice oxen, av 1,677 lbs, at $4 50.

Roe & Phillips sold Henry 10 fair shipping steers, av 1,035 lbs, at $4, and a good bull, weighing 1,720 lbs, at $3 25.

Purdy sold Burt Spencer 2 extra steers, av 1,730 lbs, at $5 60, and 2 oxen, av 1,855 lbs, at $4

Sly sold Burt Spencer a choice shipping steer, weighing 1,600 lbs, at $5.

Morley sold Wm Wreford & Co 2 good butchers' steers, av 995 lbs, at $3 60.

Purdy sold Burt Spencer 11 fair shipping steers, av 1,013 lbs, at $4.

Adams sold Roe & Phillips 9 fair butchers' steers av 770 lbs at $3 20, and a mixed lot of 3 head of fair butchers' stock to Robinson, av 840 lbs, at $3 12½.

Roe & Phillips sold Henry 4 stockers, av 795 lbs, at $3 25.

Morley sold Burt Spencer 4 bulls, av 1,072 lbs, at $3 40.

Giddings sold Kurtz 11 choice year ings, av 982 lbs, at $4 15.

Engle sold Burt Spencer 4 fair shipping steers, av 1,355 lbs, at $4, and a coarse ox, weighing 1,480 lbs, at $3.

Sly sold Burt Spencer 2 good shipping steers, av 1,300 lbs, at $4 25.

Astley sold Duff & Caplis a mixed lot of 16 head of fair butchers' stock, av 880 lbs, at $3 20.

Switzer & Ackley sold Duff & Caplis a mixed lot of 10 head of thin butchers' stock, av 981 lbs, at $3 80.

Lee sold H Flieschman a mixed lot of 11 head of good butchers' stock, av 820 lbs at $3 30.

Capwell sold Burt Spencer 11 good oxen, av 1,640 lbs, at $4.

Lovewell sold Burt Spencer 2 coarse oxen, av 1,655 lbs. at $3 10.

SHEEP.

The offerings of sheep numbered 4,255 head, against 1,319 head last week. The sheep trade here and at the east is demoralized, the market at Buffalo having completely broke down at the end of last week. There is a blockade at that point and until it is cleared the prospects for the sheep trade are slim. In our market on Saturday there was so little done that prices were hardly established. The fact was that none of the shippers were buying and the few lots sold were either to fill up or to the retail trade. The sales we give are at as high rates as the same weights were quoted in Buffalo at the close on Friday last.

Lathrop sold Lewis 100, av 97 lbs, at $4 70.

Roe & Phillips sold Kammon 30, av 104 lbs, at $4 90.

Brown sold Fitzpatrick 49, av 94 lbs, at $4 50.

Hyman sold Freeman 26, av 105 lbs, at $4 90.

Lincoln sold Ellis 36 culls, av 88 lbs. at $4.

Stevens sold Clark 147, av 95 lbs, at $4 50.

Pearson sold Taylor 87, av 91 lbs. at $4 40.

Loosemore sold Wm. Wreford & Co 32, av 104 lbs, at $5.

HOGS.

The offerings of hogs numbered only 257 head, against 470 head last week. The market was active to the extent of the offerings, at an advance of fully 25 cents per hundred.

Plotts sold Webb Bros 47, av 152 lbs, at $4 75.

Bordoin sold Burt Spencer 17, av 167 lbs, at $4 90.

Devine sold Burt Spencer 9, av 322 lbs, at $5 10.

G. D. Spencer sold Burt Spencer 59, av 206 lbs, at $5.

Hill sold Burt Spencer 34, av 188 lbs, at $5.

Brown sold Burt Spencer 29, av 192 lbs, at $5.

Switzer sold Burt Spencer 10, av 263 lbs, at $5 15.

McMullen sold Burt Spencer 28, av 172 lbs, at $4 70.

Ramsey sold Burt Spencer 83, av 159 lbs, at $4 75.

King's Yards.

Monday, January 24th, 1881.

CATTLE.

The market opened up at these yards with a good supply of cattle and a large attendance of buyers. There was an active demand for all grades and the offerings were closed out at about last week's rates.

Aldrich sold Hersch 6 fair butchers' heifers, av 880 lbs, at $3 30.

Goodison sold Sam Andrews a mixed lot of 11 head of good butchers' stock, av 976 lbs, at $3 50, and a bull to Robinson weighing 1,180 lbs, at $3.

Beardsley sold Drake 4 good shipping steers, av 1,170 lbs, at $4 20.

Messmore sold Drake 4 fair shipping steers, av 1,075 lbs, at $4.

Hall sold Messmore a mixed lot of 9 head of good butchers' stock, av 884 lbs, at $3 65, and 9 fair shipping steers to Drake, av 1,116 lbs, at $4.

Walls sold Drake 6 fair shipping steers, av 1,100 lbs, at $4, and 6 good butchers' steers and heifers, av 820 lbs, to Dejat at $3 75.

Hagerman sold Baxter 3 choice butchers' steers, av 950 lbs, at $3 85.

Hall sold McIntire a mixed lot of 4 head of thin butchers' stock, av 962 lbs, at $2 80.

Miller sold Drake 2 good oxen, av 1,670 lbs, at $4, and 2 coarse ones, av 1,435 lbs, at $3.

Shepard sold Drake 2 fair oxen, av 1,975 lbs, at $3 65.

Newton sold Wm. Wreford & Co a mixed lot of 10 head of thin butchers' stock, av 1,026 lbs, at $2 75.

Townsend sold Kammon a mixed lot of 8 head of thin butchers' stock, av 938 lbs, at $2 65.

Young sold Smith a mixed lot of 4 head of thin butchers' stock, av 736 lbs, at $2 75.

Barwise sold Andrews a mixed lot of 9 head of fair butchers' stock, av 755 lbs, at $3 15.

Bliss sold H Roe a mixed lot of 15 head of fair butchers' stock, av 808 lbs, at $3 15.

Aldrich sold Marks 4 choice butchers' steers, av 1,100 lbs, at $4.

H Flieschman sold Reid a mixed lot of 6 head of good butchers' stock, av 913 lbs, at $3 52.

Hagerman sold Wm Wreford & Co a mixed lot of 6 head of good butchers' stock, av 810 lbs, at $3 50

West sold Houghton a mixed lot of 5 head of thin butchers' stock, av 1,022 lbs, at $2 75, and 2 choice butchers' stock to Kraft, av 1,015 lbs, at $4.

H Flieschman sold Stucker a mixed lot of 7 head of thin butchers' stock, av 610 lbs, at $2 55.

Jennings sold Stucker a mixed lot of 11 head of fair butchers' stock, av 807 lbs, at $2 95.

Wideman sold Drake 7 coarse oxen, av 1,470 lbs, at $3 20.

Anstey sold Drake 4 coarse oxen, av 1,752 lbs, at $3 25.

Broeg sold McGee a mixed lot of 16 head of thin butchers' stock, av 643 lbs, at $2 75.

Cheeseman sold Robinson a mixed lot of 10 head of fair butchers' stock, av 1,029 lbs, at $3 15.

Wideman sold H Roe a mixed lot of 14 head good butchers' stock, av 1,024 lbs, at $3 50, and 2 bulls, av 1,360 lbs, at $3.

Oberhoff sold S Flieschman 2 choice butchers' steers, av 875 lbs, at $4.

Anstey sold Wm Wreford & Co a mixed lot of 6 head of thin butchers' stock, av 726 lbs, at $2 50.

Platt sold Oberhoff 2 bulls, av 1,025 lbs, at $2 60.

Pierson sold Wm Wreford & Co a mixed lot of 24 head of fair butchers' stock, av 790 lbs, at $2 90, and a bull weighing 980 lbs, at $2 50.

M Fliescaman sold Messmore a mixed lot of 15 head of fair butchees' stock, av 838 lbs, at $3 10.

Chicago.

CATTLE.—Receipts for the week, 25,348, against 20,507 the previous week. Shipments 10,557. The market opened on Monday with a very light supply of cattle, and sellers were enabled to effect an early clearance at an advance of 10 to 15 cents per hundred over the rates ruling at the close of last week. Shippers paid $3 75@5 for common to choice steers averaging from 1,050 to 1,450 lbs, while sales to the local trade were mostly at $2 75@3 50. Stockers sold all the way from $2 75@3 75. The supply on Tuesday was again light and sellers were enabled to close out at fully Monday's rates. On Wednesday the market was active and firm at an advance of 10 to 15 cents per hundred over the rates of Tuesday making an advance of 20 to 30 cents over the prices ruling on Saturday last. The market on Thursday was not very active, but prices ruled fairly steady on the better grades, with medium stock a little weak. On Friday there was an active demand for the better class of shipping cattle at a shade stronger prices. For medium and common grades the market was slightly in buyers favor; averaging about 10 cents per hundred lower than on the day previous. On Saturday the market ruled steady with a fair demand. The closing quotations were:

Extra Beeves—Graded steers weighing 1,500 lbs and upwards	$5 75 @6 00
Choice Beeves—Fine, fat, well-formed steers, weighing 1,350 to 1,500 lbs	5 00 @5 50
Good Beeves—Well-fattened steers, weighing 1,200 to 1,500 lbs	4 50 @4 75
Medium Grades—Steers in fair flesh, weighing 1,050 to 1,250 lbs	3 80 @4 25
Butchers' stock—Poor to common steers, and common to choice cows, for city slaughter, weighing 850 to 1,050 lbs	2 50 @3 75
Stock cattle—Common cattle weighing 600 to 1,000 lbs	2 85 @3 65
Inferior—Light and thin cows, heifers, stags, bulls, and scalawag steers	2 00 @2 40

HOGS.—Receipts, 212,863 head, against 220,083 the previous week. Shipments, 17,880. On Monday trade opened active and continued until the offerings were all disposed of. Prices compared with those of Saturday showed an advance of 5 cents per hundred on all grades. Common to best light sold at $4 75@5, and poor to choice heavy grades at $4 75@5 35. There were sales of skips and culls at $3 75@4 50. Tuesday's market opened active and strong. There was sharp competition between packers, and early sales were at better prices, but during the afternoon the increased supply caused an easier feeling, and the market closed dull and weak at Monday's quotations. On Wednesday the market was dull at a decline of 5 cents per hundred on all grades. The market opened quiet on Thursday, but improved during the day, with prices 5 cents higher than the day previous. On Friday the market opened active and higher and ruled strong to the finish. Poor to prime light weights sold at $4 80@5 05, and poor to extra heavy at $4 80@5 50. There were several sales at $5 45@5 50. Of inferior grades there were fewer than usual, and but little trading was done below $4 90. Skips and culls sold at $3 75@4 65. The market on Saturday opened fairly active at Friday's rates but towards the close it was weak and 5 to 10 cents lower.

Buffalo.

CATTLE.—Receipts 11,731 against 12,616 the previous week. The offerings of cattle on Monday numbered 125 carloads. The supply was in excess of the demand, and prices were 15 to 25 cents lower than those of a week ago. Of Michigan cattle we note sales of 16 steers, av 1,078 lbs, at $4 30; 16 do, av 1,280 lbs, at $4 75; 13 do, av 1,136 lbs, at $4 45; 14 oxen,